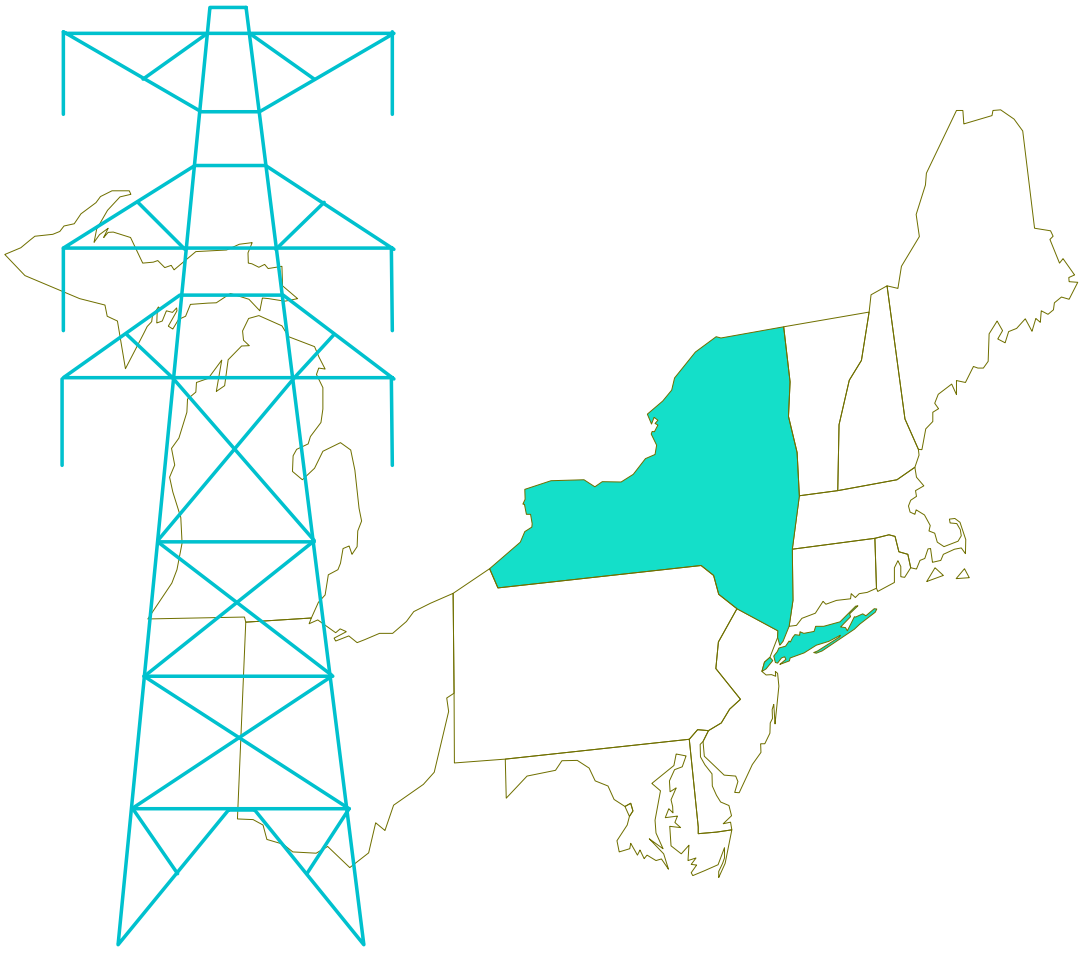
NEW YORK POWER POOL
WINTER 1999 - 2000
OPERATING STUDY



October 1999

Prepared by

Operating Studies Task Force

NYPP OPERATING STUDY - WINTER 1999 -2000

OCTOBER 1999

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NYPP OPERATING STUDY - Winter 1999 - 2000

1. INTRODUCTION

The following report, prepared by the Operating Studies Task Force (OSTF) at the direction of the System Operations Advisory Subcommittee (SOAS), highlights the significant results of the thermal analysis completed for the Winter 1999 - 2000 capability period. The thermal transfer limits were determined for the Winter coincident peak loads and represent the system capability determined by thermal analysis for the conditions represented. The results of this investigation indicate that the NYPP interconnected bulk power system can be operated reliably in accordance with the "Standards for Planning and Operating the NYPP Bulk Power System" (November 1, 1996), and the NYPP Operating Policy, for the upcoming Winter capability period.

2. RECOMMENDATIONS

The following recommendations are presented based on the analysis and results documented in this report.

1) System Operators should monitor the critical facilities noted in the enclosed tables, along with other limiting conditions, while maintaining bulk system power transfers within secure operating limits.

2) The OSTF has reviewed NYPP Stability Limits in Appendix K and recommends the continued review and analysis of the cross state stability limits analysis.

3. SYSTEM REPRESENTATION AND BASE STUDY ASSUMPTIONS

I. System Representation

The representation for NYPP was retrieved from the NYPP Databank and reflects a Winter peak load condition. The remaining NPCC members and neighboring pool representations were obtained from MEN/VEM Winter 1999-2000 power flow. The NYPP load level of 25,200MW is obtained from the NYPP Coincident Peak and the Extreme Weather Peak for the Winter 1999-2000 forecast, as documented in "NYPP Load and Capacity Data 1999" (July 1999).

The 1999-2000 NYPP representation includes approximately 5885 MW of Non-Utility Generation (NUG). Some of the NUG's are modeled conservatively with no reactive capability, others are represented with post-contingency support only. The remainder of the NUG's provide var support as requested by the utility for local voltage support.

The table below summarizes the significant generating units expected to be out of service during the system peak load period. These outages may include units anticipated to be out of service for reserve shut down or cold standby as reported in accordance with NYPP Scheduled Maintenance Outages MP-7, Appendix B.

NYPP Generation Outages
WINTER 1999-2000

UNIT NAME	BUS #	UNIT ID	DMNC (MW)
Astoria 4	74705	4	369

The inter-pool transactions, modeled in this representation, summarized in Appendix A, were obtained from the MEN/VEM 1999 Winter Basecase.

The PSEG and Con Edison phase-angle-regulator (PAR) schedules were adjusted to reflect the PSEG 1000 MW Wheel with Consolidated Edison. The Branchburg - Ramapo 500 kV (5018) tie is adjusted to reflect transactions as stated in the "Ramapo Phase Angle Regulator Operating Procedure", December 11, 1987. This study was performed based on the assumption that phase angle regulators will not be adjusted following a contingency until their effect and new desired loadings are determined.

II Base Study Assumptions

The Normal and Emergency Criteria thermal limits have been determined by the PTI PSS/e thermal analysis activities (TLTG). The thermal limits presented have been determined for all transmission facilities scheduled in service during the 1999-2000 Winter period. The thermal analysis presented in this report has been performed in accordance with the "Standards for Planning and Operating the NYPP Bulk Power System", November 1, 1996.

Thermal transfer capability between NYPP and Neighboring Pools is also provided as part of this report. These transfer limits supplement, but do not change, existing internal operating limits. There undoubtedly are *lines internal to each pool, which if they should trip or be placed out of service, could reduce the transfer capability between pools. Reductions due to these situations are considered to be the responsibility of the individual pools.* Furthermore, the transfer condition between neighboring areas can have a significant effect on NYPP-PJM and OH-NYPP incremental transfer capacity. Since the converse is also true, continued coordination of transfers between IMO (Ontario), Michigan, PJM and NYPP is required to provide optimal transfer conditions while maintaining total system security.

4. DISCUSSION

I. NYPP Cross-State Analysis

A. Thermal Analysis

The transfer limits have been determined for various internal operating interfaces. The limits have been reported as interface limits for normal and emergency criteria contingencies. The results of the thermal analysis are presented in Section 5, Table 1.

B. Thermal Limit Sensitivities Testing

The thermal limits presented in Section 5 were determined using the base conditions and transactions. The cumulative effects of various intra and inter-pool transactions and significant changes in load or generation patterns in the system may cause significant changes in transfer limits. Some of these effects have been presented in Appendix G.

Since the schedule of various phase shifters can vary from day-to-day, sensitivity analysis for various Interfaces have been determined. Graphs showing the effect of phase shifters on these interfaces limits are included in Appendix G.

C. NYPP System Conditions

CHG&E and Northeast Utilities will operate the Smithfield-Falls Village 69kV line (FV/690) normally closed through the Winter 1999-2000 capability period. The maximum allowable transfer on this line is 28 MVA, based on a thermal limit in the Northeast Utilities 69 kV system. The FV/690 will have overcurrent protection that will trip the line in the event of an actual overload. This facility will not limit NYPP-ISO-NE transfers.

New England's Millstone units #2 and #3 are in service and are assumed to be operating through the Winter 1999-2000 Capability period.

During this Winter Capability period, several of the IMO (Ontario) nuclear units will not be available. Pickering A units #1-4, located on the northern shore of Lake Ontario just east of Toronto, remain out of service under the Nuclear Recovery Program, and are not expected back in service before the Summer 2000. Four units at Bruce station, located on the eastern shore of Lake Huron, are on an extended forced outage and also are not expected to return prior to Summer 2000. This creates a reduction of generation in the province of Ontario of over 5000 MW.

D. West Woodbourne Transformer

The Total-East interface may become restricted to significantly lower transfer levels for certain contingencies which would overload the West Woodbourne 115/69kV transformer. Therefore, when the West Woodbourne tie becomes the limiting facility, it may be removed from service to allow an increase in the Total-East transfer limit. An overcurrent relay is installed at West Woodbourne to protect for contingency overloads.

E. LIPA Import Analysis

Import limits for normal conditions were analyzed with base generator dispatch and PAR settings as described in Appendix B. Both normal and emergency limits are dispatch dependant and can vary based on generation and load patterns in the western LIPA region.

Import levels for emergency conditions were analyzed with base case conditions modified. The Con Ed - LIPA PARS were adjusted to allow for maximum transfer capability into LIPA. The PAR settings employed for this condition are described below:

LIPA PAR Settings for Emergency Conditions

Jamaica - Lake Success	60 MW
Jamaica - Valley Stream	225 MW
Sprain Brook - East Garden City	300 MW
Norwalk Harbor - Northport	Out of Service

F. NYPP Oasis Firm Total Transfer Capability

The total transfer capabilities (TTC) are posted on the NYPP OASIS for transmission reservation purposes. The TTC's are reported and posted on an OASIS path basis. These paths are subsets of the existing NYPP operating interfaces and are shown in Appendix E. The firm TTC's for the NYPP paths are documented in Appendix L. These TTC's are reviewed and maintained on a seasonal basis. Also included is an OASIS map identifying the paths.

G. Transfer Limits for Outage Conditions

Determination of transfer limits for outage conditions are the responsibility of the NYPP Scheduling and Commitment group based on their daily analysis using actual and forecast system conditions.

H. Transient Stability Limits

The thermal interface limits in Section 5 do not include the results of transient stability testing. The existing all lines in service and maintenance outage stability interface limits are summarized in Appendix K.

I. Comparison of Results

There have been some noticeable differences in thermal interface limits between this seasonal study and last year's Winter 1998 Operating Study. The following three interfaces have seen appreciable increases in thermal transfer limits (see Appendix H for more information):

UPNY-CONED - The interface limits for normal and emergency transfers for base case conditions have increased from 5032 MW and 5436 MW in Winter 1998 to 5600 MW and 6600 MW for Winter 1999, respectively. The explanation for this increase is the change in generation dispatch between Winter 1998-99 and Winter 1999-2000 in the following units which are located on the UPNY-CONED interface:

Unit	**Winter 1998 Generation (MW)**	**Winter 1999 Generation (MW)**	**Delta (in MW)**
Roseton 1	244	539	295
Roseton 2	0	460	460
Bowline 2	0	404	404
Totals			1159

TOTAL EAST/CENTRAL EAST - The interface limits for Total East normal and emergency transfers for base case conditions decreased from 6496 and 6740 in Winter 1998 to 5700 and 5821 for Winter 1999, respectively. The interface limits for Central East normal and emergency transfers for base case conditions decreased from 3268 and 3301 in Winter 1998 to 3122 and 3162 for Winter 1999, respectively. This decrease can be attributed to:

1. The RAMAPO PAR schedule (850 MW last winter compared to 270 MW in this study) has changed 580MW.

2. Imports from PJM have decreased 944MW from last winter. The base schedule has decreased from 1385 MW to 441 MW; this is due to the changes in modeling Homer City.

3. Increases in Southeastern NY Generation along UPNY-CONED interface (1159 MW) cited above.

II. NYPP - NEW ENGLAND ANALYSIS

A. Thermal Analysis

The transfer limits have been determined for the NYPP - New England interface. The limits have been reported as transfer capability for normal and emergency criteria contingencies. Since this is a closed interface the interface limit and the transfer capability limit for NYPP - New England and New England - NYPP are one and the same. The results of this analysis is presented in Section 5, Table 2.

B. Guides for Optimum Utilization of Ties

These transfer limits were determined for a particular load and generation pattern. When system conditions vary from those forecast in the study, Stability and Thermal Transfer Limits will vary. The following guides should be used in addition to the summary tables.

Northport - Norwalk Harbor 138kV Circuit 1385

For this season, the Northport to Norwalk Harbor (1385) circuit is out of service due to the forced outage of the Norwalk Harbor 115/138kV transformer. The analysis was performed using base case conditions for the circuit being out of service. These results are summarized in Table 2 for Direct Tie Limits, and Table 2.a for NYPP Internal Limits and Table 2.b for ISO-NE Internal Limits.

C. Overload Mitigation System

The Plattsburgh, New York to Sandbar, Vermont circuit (PV-20) including a phase angle regulating transformer is protected by VELCOs Overload Mitigation System (OMS). When a contingency causes the flow on the PV-20 to increase beyond the 249 MVA threshold for OMS activation, the system inserts a series inductor which lowers the post-contingency flow. This system is modeled in the loadflow and TLTG analysis for several generation and HVDC contingencies.

D. Stuck Breaker Contingencies in New England

For all lines in conditions, ISO-NE observe stuck breaker contingencies in New England that could lead to inter-Area impact for normal transmission contingencies.

E. Transient Stability Limitations

For certain system configurations, stability performance determines the

transfer capability between the pools. For those instances, the limits have been obtained from the report "1992-1996 NYPP-NEPOOL TRANSFER LIMIT STUDY - OCTOBER 1992", and have been adjusted to include the NYPP safety margin. These stability transfer limits are summarized in Appendix K.

The stability limits are expressed in terms of the transfer on the "Northern Ties", i.e., excluding LIPA cable flow. Stability limits for transfers from New England to New York are a function of the New England MW load level, and incorporate the effect of Northfield and Bear Swamp in the generating and pumping mode.

III. NYPP - PJM ANALYSIS

A. Thermal Analysis

The thermal limits have been determined for the NYPP - PJM interface. The limits have been reported as interface limits for normal and emergency criteria contingencies. The interface limits are a measure of the power transfer capabilities between PJM and NYPP. The results of this analysis is presented in Section 5, Table 3.

B. PJM - NYPP Transfer Cases

Additional test level transfer cases were developed for the NYPP to PJM and PJM to NYPP emergency criteria thermal analysis. The interfaces were preloaded with anticipated generation shifts to reduce the linear effects of the thermal analysis and the phase shifters associated with the interface were optimized in the direction of the transfer. The cases were dispatched to levels described in Appendix B, page 4 and the PAR's were adjusted to reflect the higher transfer conditions, also shown in Appendix B, page 4.

C. Opening of PJM to NYPP 115 kV Ties as Required

The normal criteria thermal transfer limits presented in Section 5 were determined for an all-lines-in service condition. The PJM-NYPP 115 kV facilities (Warren-Falconer, North Waverly-East Sayre, and Tiffany-Goudey), may be opened under specific transfer conditions if they impose a limit on the PJM or NYPP operation. Since overcurrent relays exist on both the Warren-Falconer 115 kV line as well as the North Waverly-East Sayre 115 kV lines, these lines would trip by relay action for an *actual overload* condition. Laurel Lake-Goudey may be opened if it imposes an actual or post-contingency overload condition since there is no overload protection.

The PJM - NYPP emergency criteria limits presented in this report consider if these ties can be opened in accordance with existing NYPP and PJM Operating Procedures. In some cases these lines were open to obtain a high emergency transfer. The results illustrated in Table 3 assume these lines would be opened if necessary. A more detailed review of the control actions and the lines which were opened is presented in appendix F.

IV. IMO (ONTARIO) - NYPP

A. Thermal Analysis

The thermal limits have been determined for the NYPP - Ontario interface. The limits have been reported as interface limits for normal and emergency criteria contingencies. The interface limits are a measure of the power transfer capabilities between Ontario and NYPP. The results of this analysis is presented in Section 5, Table 4.

B. Transient Stability Limitations

At the direction of the Ontario-NYPP System Studies Subcommittee, the Ontario-NYPP Transient Stability Study Working Group has conducted a thorough review and analysis of appropriate transient stability limits. The report "NYPP Ontario TRANSIENT STABILITY TESTING REPORT on DIRECT TIE TRANSFER CAPABILITY - OCTOBER 1993", summarizes the results of single line outage stability testing which are listed in Appendix K of this report. Additional transient stability limits will be reported by the OHSC-NYPP SSS as appropriate.

C. Generation Rejection for Loss of L33P/L34P-Moses

The preceding interface limits were determined for a particular load, transmission and generation pattern. When system conditions vary from those forecast in the study, normal interface limits may vary. Generation rejection facilities are available at Beauharnois and Saunders to reject specific amounts of generation for the loss of Moses-L33P and/or Moses-L34P interconnectio n. These rejection facilities will be implemented by IMO (Ontario), consistent with system reliability concerns.

Of the two circuits, L33P is more limiting. At 0 degrees phase shift the limiting STE rating is 514 MVA (regulator rating). The outage distribution factor for the loss of L34P is 60.1% and based on this, the maximum pre-contingency flow on each circuit should not exceed 320 MW. At 40 degrees phase shift the limiting STE rating is 363 MVA (phase shifter rating). The outage distribution factor for the loss of L34P is 50.8% and based on this, the maximum pre-contingency flow on each circuit should not exceed 240 MW.

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5. RESULTS: THERMAL ANALYSIS

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TABLE 1

NYPP CROSS STATE INTERFACE THERMAL LIMITS-WINTER 1999-2000
ALL LINES I/S

	DYSINGER EAST	WEST CENTRAL	UPNY-CONED	SPRAINBRK/ DUNWD-SO.	CONED-LIPA
NORMAL	3375(1)	2650(2)	5600(4)	4375(6)	750(7)
EMERGENCY	3650(1a)	2850(3)	6600(5)	4375(6a)	1275(7a)*

	LIMITING ELEMENT				LIMITING CONTINGENCY
(1)	Niagara - Rochester (NR-2) 345 kV	@LTE=	1745 MW	L/O	AES-Somerset-Rochester (SR-1) 345 kV
(1a)	Niagara - Rochester (NR-2) 345 kV	@STE=	1904 MW	L/O	AES-Somerset-Rochester (SR-1) 345 kV
(2)	Pannell Rd. - Clay (PC-2) 345 kV	@LTE =	1314 MW	L/O	Pannell Rd.- Clay (PC-1) 345 kV
(3)	Pannell Rd-Clay (PC-2) 345 kV	@STE=	1434 MW	L/O	Pannell Rd-Clay (PC-1) 345 kV
(4)	Roseton/Fishkill 345 kV	@ LTE =	2773 MW	L/O	Rock Tavern/Ramapo 345 kV Rock Tavern 345/115 kV
(5)	Leeds - Pleasant Valley (92) 345 kV	@STE =	1912 MW	L/O	Leeds-Pleasant Valley(91)345 kV
(6)	Dunwoodie - Rainey (72) 345 kV	@ STE =	1113 MW	L/O	Dunwoodie-Rainey (71) 345 kV Rainey (7W) 345/138 kV
(6a)	Dunwoodie - Rainey (71) 345 kV	@ STE =	1113 MW	L/O	Dunwoodie-Rainey (72) 345 kV
(7)	Dunwoodie - Shore Rd. (Y50) 345 kV	@Nor=	664 MW	for	pre Contingency Loading
(7a)	Dunwoodie - Shore Rd. (Y50) 345 kV	@Nor=	664 MW	for	pre Contingency Loading

*This limit assumes Emergency Transfer Condition assumptions as discussed in the Executive Summary, Section 4.E. and is supplied by LIPA

NOTE:Some transfers may be stability limited. See Appendix K for existing transient stability limits.

TABLE 1.a

NYPP CROSS STATE INTERFACE THERMAL LIMITS-WINTER 1999-2000
ALL LINES I/S

	HQ -> NY @ 400 MW	HQ -> NY @ 0 MW
CENTRAL EAST		
NORMAL	3450 MW (9a)	3100 MW (9)
EMERGENCY	3375 MW (10)	3150 MW (10)
TOTAL EAST		
NORMAL	5825 MW (8)	5675 MW (8)
EMERGENCY	6250 MW (10)	5800 MW (10)
MOSES SOUTH		
NORMAL	1725 MW (11)	1375 MW (11)
EMERGENCY	2700 MW (11a)	2225 MW (11a)

	LIMITING ELEMENT				LIMITING CONTINGENCY
(8)	Oakdale - Fraser (32) 345 kV	@ LTE =	1380 MW	L/O	Marcy-Coopers Corner (UCC2-41) 345 kV Fraser-Edic (EF24-40) 345 kV
(9)	Edic-Clay (2-15) 345 kV	@ LTE=	1434 MW	L/O	(S. BRK @ Clay) Edic-Clay (1-16) 345 Clay 345/115 kV Bank
(9a)	Marcy-New Scotland (UNS-18) 345 kV	@ LTE=	1792 MW	L/O	New Scotland-Edic 345 kV Edic 345 kV-Porter 2 230 kV Edic 345 kV-Porter 1 115 kV
(10)	Edic-Clay (2-15) 345 kV	@ STE=	1434 MW	L/O	Edic-Clay (1-16) 345 kV
(11)	Adirondack - Moses 230 kV	@ LTE =	359 MW	L/O	Moses E.- Massena (MMS-1)230 kV Moses E.- Massena (MMS-2) 230 kV
(11a)	Moses E - Massena B 230 kV (MMS-2)	@ STE=	1404 MW	L/O	Moses E. - Massena (MMS -1) 230 kV

NOTE:Some transfers may be stability limited. See Appendix K for existing transient stability limits.

TABLE 2

NYPP-NEPOOL THERMAL INTERFACE/TRANSFER LIMITS - WINTER 1999-2000
ALL LINES I/S WITH NORTHPORT/NORWALK HARBOR CABLE (1385) O/S
DIRECT TIE LIMITS

N.Y. -> N.E.

	Northport/Norwalk Harbor Cable O/S
NORMAL	1925 MW (1)
EMERGENCY	2275 MW (1a)

N.E. -> N.Y.

	Northport/Norwalk Harbor Cable O/S
NORMAL	2175 MW (2)
EMERGENCY	2425 MW (2a)

	LIMITING ELEMENT				LIMITING CONTINGENCY
(1)	Pleasant Vly- Long Mtn 345 kV	@LTE=	1476 MW	L/O	Millstone #3 and PV-20 OMS
(1a)	Pleasant Vly- Long Mtn 345 kV	@STE=	1635 MW	L/O	Millstone #3 and PV-20 OMS
(2)	Pleasant Vly- Long Mtn 345 kV	@LTE=	1476 MW	L/O	N.Scotland - Alps 345 kV Berkshire - Northfield 345 kV Berkshire 345/115 kV
(2a)	Pleasant Vly-LongMtn. 345 kV	@STE =	1635 MW	L/O	N.Scotland - Alps 345 kV Berkshire - Northfield 345 kV Berkshire 345/115 kV

Note: The NY-NE Direct Tie Limits were analyzed with Millstone #1 out-of-service, and the Northport/Norwalk Harbor cable (1385) out-of-service.

TABLE 2.a

NYPP-NEPOOL THERMAL INTERFACE/TRANSFER LIMITS - WINTER 1999-2000
ALL LINES I/S WITH NORTHPORT/NORWALK HARBOR CABLE (1385) O/S
NYPP INTERNAL LIMITS

N.Y. -> N.E.

	Northport/Norwalk Harbor Cable O/S
NORMAL	675 MW (1)
EMERGENCY	1025 MW (2)

N.E. -> N.Y.

	Northport/Norwalk Harbor Cable O/S
NORMAL	2025 MW (3)
EMERGENCY	2125 MW (4)

	LIMITING ELEMENT				LIMITING CONTINGENCY
(1)	Reynolds Rd-Greenbush 115 kV	@LTE=	234 MW	L/O	New Scotland-Alps 345 kV
(2)	Reynolds Rd-Greenbush 115 kV	@ STE =	278 MW	L/O	New Scotland-Alps 345 kV
(3)	Hoosick-Bennington 115 kV	@ LTE =	159 MW	L/O	Alps - Berkshire 345 kV Reynolds Rd.-Alps 345 kV N.Scotland-Alps 345 kV
(4)	Hoosick-Bennington 115 kV	@ STE =	159 MW	L/O	Alps - Berkshire 345 kV

Note:The NYPP Internal Limits were analyzed with Millstone #1 out-of-service, and the Northport/Norwalk Harbor cable (1385) out-of-service.

TABLE 2.b

NYPP-NEPOOL THERMAL INTERFACE LIMITS-WINTER 1999-2000
ALL LINES I/S WITH NORTHPORT/NORWALK HARBOR CABLE (1385) O/S

NEPOOL INTERNAL LIMITS

		Total Ties
		Northport/Norwalk Harbor
N.Y. -> N.E.		Cable O/S
	NORMAL	2725 MW(1)
	EMERGENCY	2725 MW(1)
		Northport/Norwalk Harbor
N.E. -> N.Y.		Cable O/S
	NORMAL	1275 MW(2)
	EMERGENCY	1500 MW(3)

	LIMITING ELEMENT				LIMITING CONTINGENCY
(1)	Berkshire - Plainfield (1231) 115 kV	@ STE =	87 MW	L/O	Bear Swamp- Harriman-Adams (E131) 115 kV
(2)	Devon - S.Naugatuck (1500) 115 kV	@ STE =	112 MW	L/O	(S. BKR @ Southington 345 kV) Southington-Frst Bridge(329) 345kV Haddam-Southington (362) 345 kV
(3)	Devon - S.Naugatuck (1500)	@ STE =	112 MW	L/O	Southington-Frst Bridge(329) 345 kV

Note: The NEPOOL Internal Limits were analyzed with Millstone #1 out-of-service and the Northport/Norwalk Harbor cable (1385) out-of-service.

TABLE 3

NYPP PJM THERMAL LIMITS-WINTER 1999-2000
ALL LINES I/S

INTERFACE LIMITS

	NYPP FACILITY	DIRECT TIE	PJM FACILITY
PJM -> NYPP			
NORMAL	2675 MW[3]	1650 MW[2]	1925 MW[1]
EMERGENCY	2975 MW[5]	3600 MW[4]	2775 MW[1]
NYPP -> PJM			
NORMAL		1000 MW[8]	1275 MW[6]
EMERGENCY		2800 MW[7]	2700 MW[6]

TRANSFER CAPABILITY

	NYPP FACILITY	DIRECT TIE	PJM FACILITY
PJM -> NYPP			
NORMAL	2900 MW[3]	1625 MW[2]	1950 MW[1]
EMERGENCY	3700 MW[5]	4550 MW[4]	3400 MW[1a]
NYPP -> PJM			
NORMAL		1475MW[8]	1800 MW[6a]
EMERGENCY		3725 MW[7]	3600 MW[6]

	LIMITING ELEMENT				LIMITING CONTINGENCY
(1)	Towanda - E. Sayre 115 kV	@ Emrg=	159 MW	L/O	E. Towanda - Hillside 230 KV
(1a)	N. Meshoppen 230/1115 KV	@ Emrg=	157 MW	L/O	Homer City - Watercure 345 KV
(2)	Warren-Falconer (171) 115 kV	@ LTE=	136 MW	L/O	Dunkirk - S. Ripley 230 KV
(3)	Ramapo PAR (1) 345 KV	@ LTE =	840 MW	L/O	Ramapo PAR (2) 345 kV
(4)	E. Towanda - Hillside 230 kV	@ STE =	927 MW	L/O	Homer City - Watercure 345 kV E.Sayre - N. Waverly 115 KV
(5)	Montuor - Coddington	@ STE =	125 MW	L/O	Oakdale - Watercure (31) 345 kV
(6)	Seward 230/115 kV	@ Emrg =	295 MW	L/O	Homer City - Keystone - Shelocta 345/230 kV
(6a)	Hawth - Hawthorn 230 KV	@Emrg=	583 MW	L/O	Ramapo 500/345 KV bank
(7)	E. Towanda-Hillside (70) 230 kV	@ Nor =	512 MW	L/O	Pre Contingency Loading
(8)	E. Sayre - N. Waverly	@LTE=	139 MW	L/O	E. Towanda - Grover 230 kV E. Towanda - Hillside 230 kV E. Towanda 230/115 kV

NOTE:Emergency Limits may have required line outages as described in Section 4.III. Also PAR schedules have been optimized for the emergency limits as described in appendix B. Some transfers may be stability limited. See Appendix K for existing transient stability limits.

TABLE 4

NYPP - IMO (ONTARIO) THERMAL INTERFACE LIMITS - WINTER 1999-2000
ALL LINES I/S

	L33/34P @ 0 MW			L33/34P @ 400 MW*		
	NYPP FACILITY	OH FACILITY	DIRECT TIE	NYPP FACILITY	OH FACILITY	DIRECT TIE
IMO (Ontario) -> NY						
NORMAL	1025 (1)	1850 (2a)	2325 (4)	1425(1)	2200 (2a)	2700 (4)
EMERGENCY	1275 (1a)	2275 (3a)	2850(4a)	1725 (1a)	2675 (3a)	3250 (3)
				L33/34P @400 MW**		
NY ->IMO (Ontario)						
NORMAL		1275 (2)	1650 (6a)		1375 (2)	1750 (6a)
EMERGENCY		1700 (5)	2000 (6)		1800 (5)	2100(6)

	LIMITING ELEMENT				LIMITING CONTINGENCY
(1)	Niagara-Rochester 345 kV (NR-2)	@ LTE =	1745 MW	L/O	AES Somerset - Rochester 345 kV (SR-1)
(1a)	Niagara-Rochester 345 kV (NR-2)	@STE =	1904 MW	L/O	AES Somerset - Rochester 345 kV (SR-1)
(2)	Middleport-Allanburg220kV (Q30)	@ LTE =	520 MW	L/O	Beck-Hannon-Nebo 220 kV (Q24HM) Beck-Hanon-Nebo-Middleport 220 kV (Q29HM)
(2a)	Middleport-NealJct220kV (Q25BM)	@ LTE =	520 MW	L/O	Beck-Hanon-Nebo-Middleport 220 kV (Q24HM) Beck-NealJct-Burlington 220 kV (Q23BM)
(3)	Niagara-Beck (PA27)	@ STE =	685 MW	L/O	Beck-Niagara 345 kV (PA301)
(3a)	Middle8086-Middledk1 (T3)	@ Nor =	802 MW	for	Pre-Contingency Loading
(4)	Niagara - Beck 230 kV (PA27)	@ LTE =	540 MW	L/O	Niagara-Beck 345kV (PA301)
(4a)	Niagara - Beck 230 kV (PA27)	@ STE =	685 MW	L/O	Niagara-Beck 345kV (PA301)
(5)	Middleport-Allanburg 220 kV (Q30)	@ STE =	520 MW	L/O	Beck-Hannon-Nebo-Middleport (Q29HM)
(6)	Niagara - Beck 230 kV (PA27)	@ Nor =	480 MW	for	Pre Contingency Loading
(6a)	Niagara - Beck 230 kV (PA27)	@ LTE =	540 MW	L/O	Niagara-Beck 345kV (PA301) Niagara 345/230 kV

NOTE:Some transfers may be stability limited. See Appendix K for existing transient stability limits.

* Interface limits W/L33 PAR range of +40/-40

** For NY-IMO (Ontario) @ 400 MW, there is insufficient angle to achieve the desired transfer.
Actual power transfer was 48 MW (L33P) and 57 MW (L34P)

TABLE 5

NYPP BULK POWER SYSTEM
OP-1 VOLTAGE LIMITS
ALL LINES I/S

Area	Bus Name		Pre kV	Post kV
Rochester	Rochester 345 kV	*	343	328
	Pannell Rd 345 kV	*	341	328
	Clay 345 kV		345	328
Southern Tier	Oakdale 345 kV		335	320
	Fraser 345 kV		338	328
	Gardenville 230 kV		217	207
	Watercure 230 kV		215	207
UPNY-Con Ed	Bowline Point 345 kv		345	328
	Buchanan 345 kv		345	328
	Dunwoodie 345 kv		348	328
	Rock Tavern 345 kv		348	328
	Ladentown 345 kv		348	328
	Millwood 345 kv		345	328
	Pleasant Valley 345 kv		343	328
	Ramapo 345 kv		345	328
	Roseton 345 kv		345	328
	Sprainbrook 345 kv		348	328
Central East	New Scotland 345 kV		348	328
	Marcy 345 kV		348	328
	Edic 345 kV		347	328
	Leeds 345 kV		345	328

Note :*Indicates limits are sensitive to HQ - NYPP transfers. Sensitivities to HQ transfers were not tested
Pre Pre-Contingency Voltage Limit
PostPost-Contingency Voltage Limit

CENTRAL EAST MAXIMUM TRANSFER LEVELS (MTL)
(All Facilities In Service Post Contingency Levels and 3 out of 5 Oswego Complex Units
In Service (including Nine Mile Pt #2)

Critical Contingencies	Pre MTL (MW)	Post MTL (MW)
Loss of New England Phase II HVDC @ 1200 MW	3191	3506
Loss of Marcy-South double circuit (northern circuits)	3191	4039
Loss of New Scotland 345 kV #99 Bus	3261	2560

Note : The Pre MTL is determined from the Post MTL and is calculated on - line at the NYPP PCC.

APPENDIX A

SCHEDULE OF SIGNIFICANT INTERCHANGES ASSUMED FOR NYPP CROSS-STATE TRANSFER LIMITS STUDIES

WINTER 1999

APPENDIX A

SCHEDULE OF NET INTERCHANGES

NYPP OPERATING STUDY - WINTER 1999

TO FROM	NYPP	PJM	IMO	ISO-NE	NB/NS	MECS	ECAR/ MAPP	HQ	Total Export (+)/Import(-)
NYPP		-441	0	123	0	0	82	71	-165
PJM	441		0	0	0	0	-418	0	25
IMO	0	0		0	0	0	-200	-650	-850
ISO-NE	-123	0	0		-600	0	0	-200	-923
NB/NS	0	0	0	600		0	0	-200	400
MECS	0	0	0	0	0		292	0	292
ECAR/MAPP	-82	418	200	0	0	-292		0	244
HQ	-71	0	650	200	200	0	0		979

APPENDIX A *SUMMARY OF WINTER 1999 BASE TRANSFERS*	
NEW BRUNSWICK	
New Brunswick to Hydro-Quebec: HVDC: Madawaska/Eel River	-200
New Brunswick to New England: New Brunswick to N.E.	600
New Brunswick to New England: Non-Firm Energy	0
Total Export (+) / Import (-)	**400**
NEW ENGLAND	
New England to New Brunswick: New Brunswick to N.E.	-600
New England to Hydro-Quebec: S. Pond & Highgate	-200
New England to New York: New England to N.Y.	-123
New England to IMO (Ontario): IMO (Ontario) to ISO-NE	0
New England to New Brunswick: Non-Firm Energy	0
New England to New York: Non-Firm Energy	0
Total Export (+) / Import (-)	**-923**
NEW YORK POWER POOL	
New York to Hydro Quebec: Chateaugauy Import	0
New York to New England: NYPA to VELCO	123
New York to Hydro Quebec: Cornwall	71
New York to PJM: NYPA to PA-RECS	94
New York to PJM: NYPP NUGS in PJM	-36
New York to ECAR: NYPA to AMP- Ohio	82
New York to IMO (Ontario)	0
New York to PJM: Homer City (NYSEG)	-499
New York to New England: Non-Firm Energy	0
New York to PJM: Non-Firm Energy	-500
Total Export (+) / Import (-)	-665

APPENDIX A *SUMMARY OF WINTER 1999 BASE TRANSFERS*	
IMO (Ontario)	
IMO (Ontario) to New England: New England to IMO (Ontario)	0
IMO (Ontario) to Hydro-Quebec: HQ to IMO (Ontario)	-650
IMO (Ontario) to New York	0
IMO (Ontario) to MECS (DECO)	0
IMO (Ontario) to MAPP	-200
Total Export (+) / Import (-)	**-850**
MECS	
MECS to IMO (Ontario): Ontario to DECO	0
MECS to ECAR	292
MECS to IMO (Ontario): Non-Firm Energy	0
Total Export (+) / Import (-)	**292**

APPENDIX A *SUMMARY OF WINTER 1999 BASE TRANSFERS*	
PJM	
PJM to New York: NYPA to PA-RECS	-94
PJM to New York: NYPP NUGS in PJM	36
PJM to New York: NYSEG to GPU	0
PJM to IMO (Ontario): Ontario to PJM	0
PJM to ECAR: PJM to FE	-118
PJM to VACAR: PJM to VP	0
PJM to ECAR: PJM (PEPCO) to OE	0
PJM to ECAR: PJM to CEI	0
PJM to ECAR: PJM to HE	-200
PJM to ECAR: PJM to EKP	0
PJM to ECAR: PJM to DLCO	-100
PJM to ECAR: PJM to Cinergy	0
PJM to New York: Homer City (NYSEG)	499
PJM to Seneca Pumped Hydro	-81
PJM to New York: Non-Firm Energy	1
PJM Non-Firm Energy Transactions	83
Total Export (+) / Import (-)	**25**

APPENDIX A *SUMMARY OF WINTER 1999 BASE TRANSFERS*	
HYDRO-QUEBEC	
Hydro-Quebec to New Brunswick: HVDC: Madawaska/Eel River	200
Hydro-Quebec to New England: Sandy Pond & Highgate	200
Hydro-Quebec to New York: Chateauguay Import	0
Hydro-Quebec to New York: Cornwall	-71
Hydro-Quebec to IMO (Ontario)	650
Total Export (+) / Import (-)	**979**
ADDITIONAL TRANSFERS	
ECAR to New York: NYPA to AMP-Ohio	-82
MAPP to IMO (Ontario): Ontario-Manitoba Hydro	200
ECAR to MECS: MECS to ECAR	-292
VACAR to PJM: PJM to VP	0
ECAR to PJM: PEPCO to OE	0
ECAR to PJM: PJM to CEI	0
ECAR to PJM: PJM to HE	200
ECAR to PJM: PJM to FE	118
ECAR to PJM: PJM to DLCO	100
ECAR to PJM: PJM to Cinergy	0
Seneca Pumped Hydro to PJM	81
MECS Non-Firm Energy Transactions	0
PJM Non-Firm Energy Transactions	-83
Total Export (+) / Import (-)	**242**

APPENDIX B

PERTINENT INFORMATION

&

ONE-LINE DIAGRAMS

INDEX

Pertinent Information **B-1**

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Western NYPP **B-6**

Eastern NYPP **B-7**

Southern NYPP **B-8**

Central Hudson **B-9**

Consolidated Edison **B-10**

LIPA **B11-12**

NYSEG **B13-14**

NMPC **B15-20**

Orange & Rockland **B-21**

Rochester **B-22**

Beauharnois **B-23**

PJM **B-24**

PSE&G **B-25**

Upny-Con Edison **B-26**

PERTINENT INFORMATION

A. Winter 1999 Conditions

GENERATION FACILITIES (LEVEL OF MWS IN CASE)

The status and dispatch of generation represented in this analysis is listed below.

NYPP

Indian Pt #2	931 MW	In Service
Indian Pt #3	980 MW	In Service
Kintigh	685 MW	In Service
Nine Mile Pt #1	625 MW	In Service
Nine Mile Pt #2	1090 MW	In Service
Oswego #5	0 MW	O/S
Oswego #6	0 MW	O/S
Albany 1-4	371 MW	In Service
Ravenswood #3	845 MW	In Service
Roseton 1	539 MW	In Service
Roseton 2	460 MW	In Service
Bowline Pt 1	526 MW	In Service
Bowline Pt 2	404 MW	In Service
Niagara (13)	2515 MW	In Service
St. Lawrence/FDR (16)	912 MW	In Service
Poletti	565 MW	In Service
Gilboa (2)	500 MW	In Service
CoGen Tech	645 MW	In Service
J.A. Fitzpatrick	820 MW	In Service
JMC Selkirk II (A,B,C)	252 MW	In Service
Falcon Seaboard (1,2,3)	240 MW	In Service
Sithe	1043 MW	In Service
Ginna	469 MW	In Service

NEPOOL		
Millstone Point #2	868 MW	In Service
Millstone Point #3	1146 MW	In Service
Vermont Yankee	496 MW	In Service
Northfield 1-4	750 MW	In Service
Bear Swamp 1+2	440 MW	In Service
Norwalk Harbor 1+2	162/168 MW	In Service
Seabrook	1150 MW	In Service
OH		
Darlington 1-4	3520 MW	In Service
Beck (22)	1503 MW	In Service
Bruce Station (4)	3100 MW	In Service
Lambton Station	1940 MW	In Service
Pickering Station (4)	2040 MW	In Service
Nanticoke Station (8)	3880 MW	In Service
Saunders (16)	848 MW	In Service
PJM		
Peach Bottom #2	1111 MW	In Service
Peach Bottom #3	1119 MW	In Service
Salem #1	0 MW	O/S
Salem #2	1120 MW	In Service
Limerick #1	1155 MW	In Service
Limerick #2	1155 MW	In Service
Hope Creek	1073 MW	In Service
Susquehanna #1	1106 MW	In Service
Susquehanna #2	1106 MW	In Service

HQ HVDC CONVERTER SCHEDULES

Chateauguay HVDC	-475 MW	Reverse Mode
Sandy Pond HVDC	0 MW	O/S
Highgate HVDC	200 MW	In Service
Madawaska HVDC	100 MW	In Service
Eel River HVDC	100 MW	In Service

POOL LOADS & LOSSES

NYPP	25211 MW
NEPOOL	20496 MW
OH	24534 MW
PJM	42900 MW

PHASE ANGLE REGULATOR SCHEDULES

Inghams Bus Tie (CD-ED)	120 MW
Plattsburgh-Sandbar (PV-20)	97 MW
St. Lawrence-Moses L33P	0 MW
St. Lawrence-Moses L34P	0 MW
Northport-Norwalk Harbor	O/S
Jamaica-Valley Stream	0 MW
Jamaica-Lake Success	-235MW
Hudson-Farragut (B3402)	498 MW
Hudson-Farragut (C3403)	497 MW
Linden-Goethals	0 MW
Waldwick-Hinchman	309 MW
Waldwick-Fairlawn	300 MW
Waldwick-Hillsdale	329 MW
Ramapo PAR #1 (+ to NY)	135 MW
Ramapo PAR #2 (+ to NY)	135 MW
East Garden City #1	O/S
East Garden City #2	340 MW

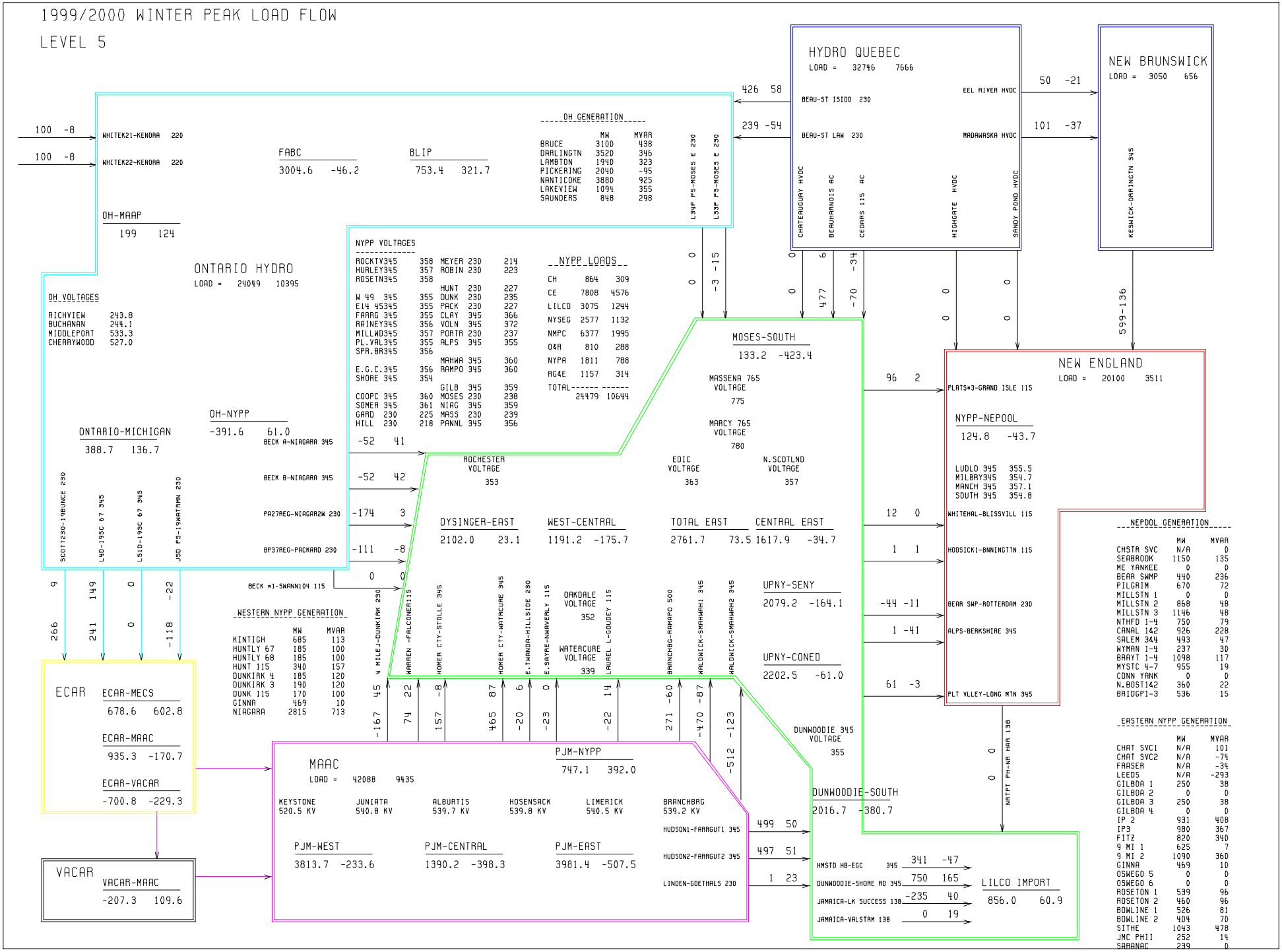
PAR SCHEDULES - BASE CASE & SENSITIVITY CASES

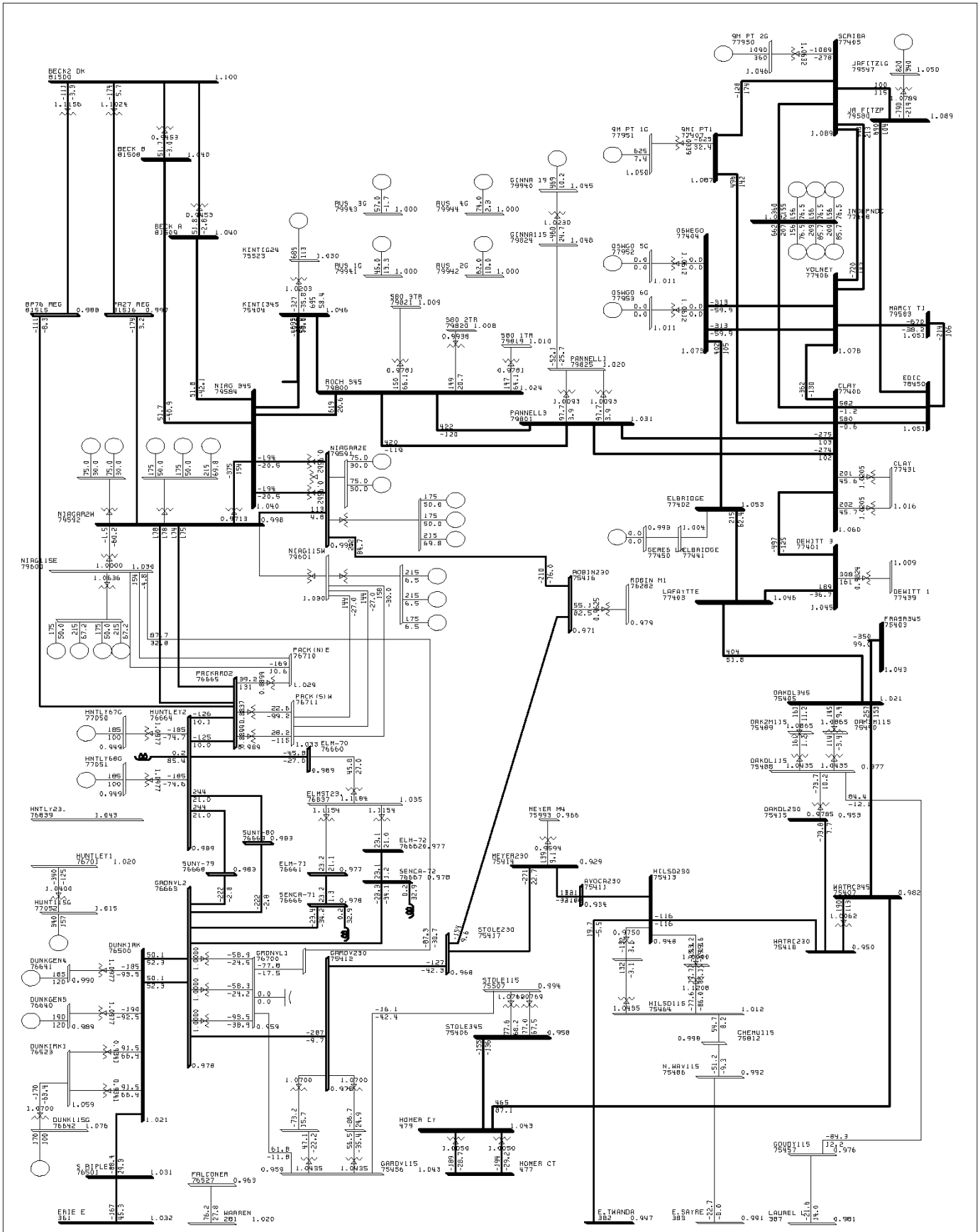
		Case		
PJM - NYPP		**Base Case**	**PJM-NYPP**	**NYPP-PJM**
BRANCHBG 500	RAMAPO 5 500	270	1000	-1000
HUDSON 1 345	FARRGUT1 345	500	400	277
HUDSON 2 345	FARRGUT2 345	400	400	319
LINDEN 230	GOETHALS 230	0	201	26
WALDWICK 345	SMAHWAH1 345	-471	-224	-474
WALDWICK 345	SMAHWAH2 345	-512	-286	-512
Free Flowing Ties		537	1348	-441
PJM - NYPP Interface Flow		719	2824	-1803
PJM - NYPP Transfer		441	3441	-2559

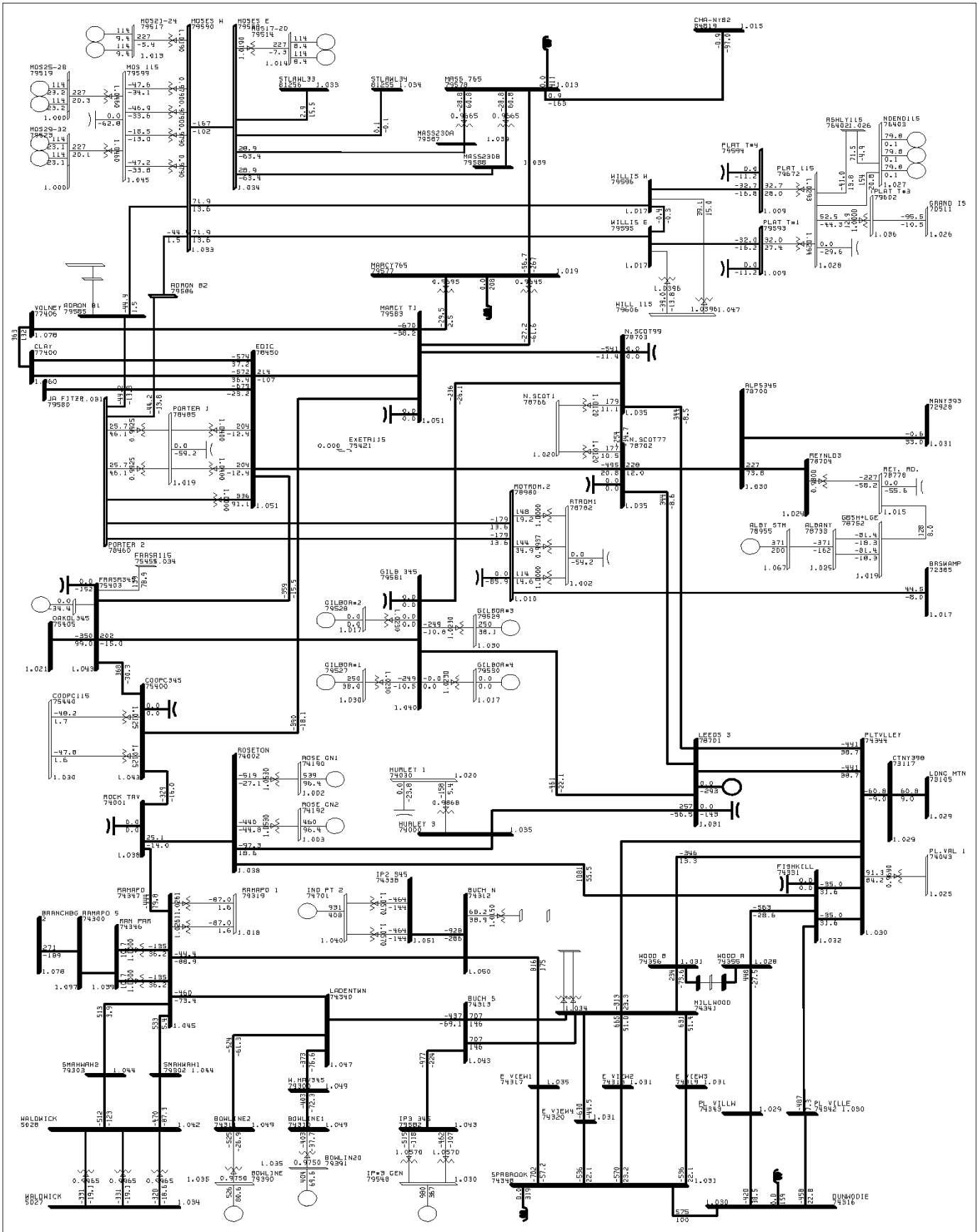
Note:
Base Case : Used for All Cases Except Where Noted
PJM - NYPP : Used for PJM - NYPP Emergency Transfer TLTG
NYPP - PJM : Used for NYPP - PJM Emergency Transfer TLTG

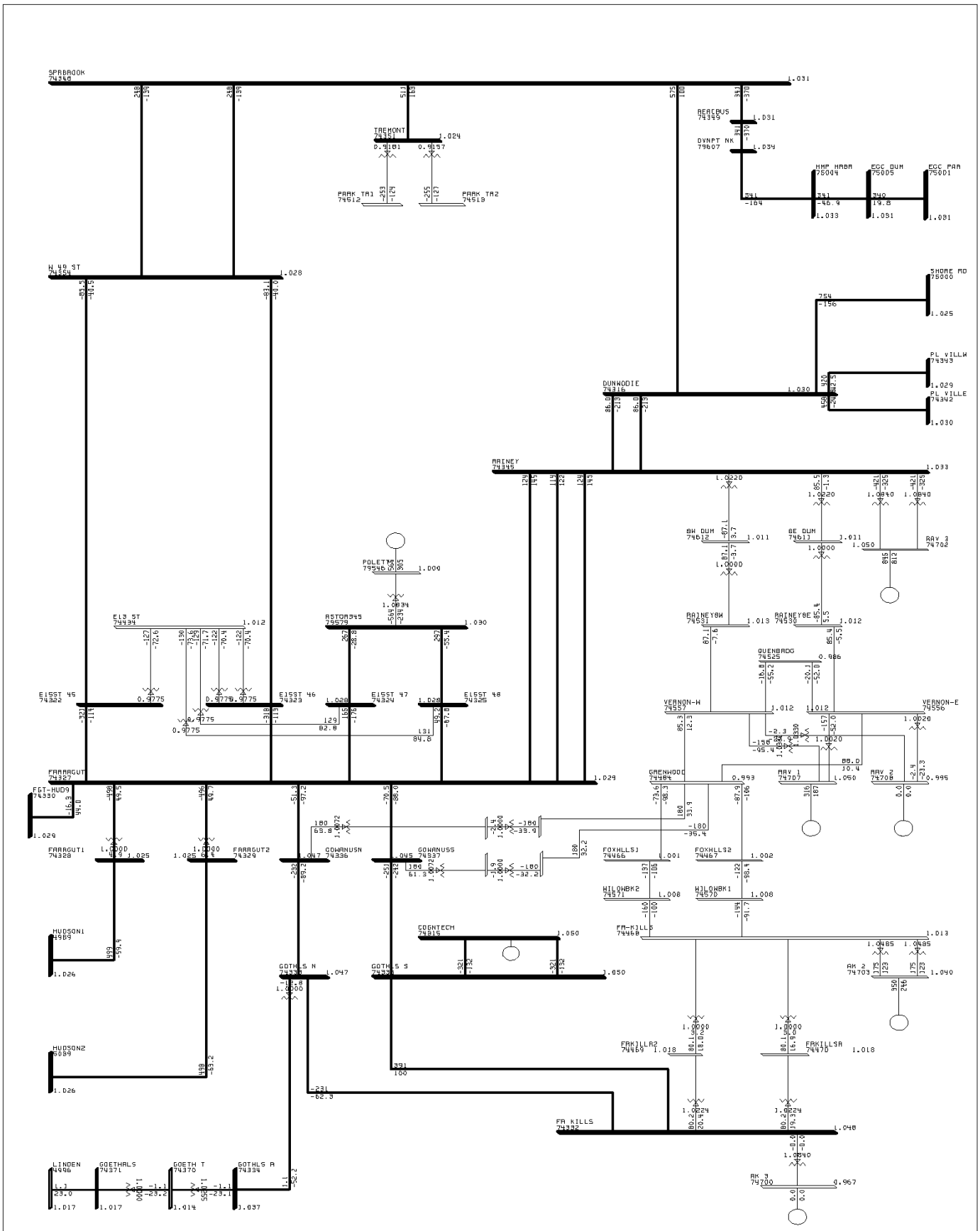
		Case		
OH - NY		**Base Case**	**OH-NY**	**NY-OH**
St. Lawrence	Moses (L33P)	0	200	-48
St. Lawrence	Moses (L34P)	0	200	-57
Free Flowing Ties		-363	-657	-285
Total Interface Flow		-363	-257	-390

		Case		
NY - NE		**Base Case**	**NY-NE**	**NE-NY**
Plattsburgh	Vermont (PV20)	97	97	97
Northport	Norwalk (1385)	0	0	0
Other		30	30	30
Total Interface Flow		127	127	127

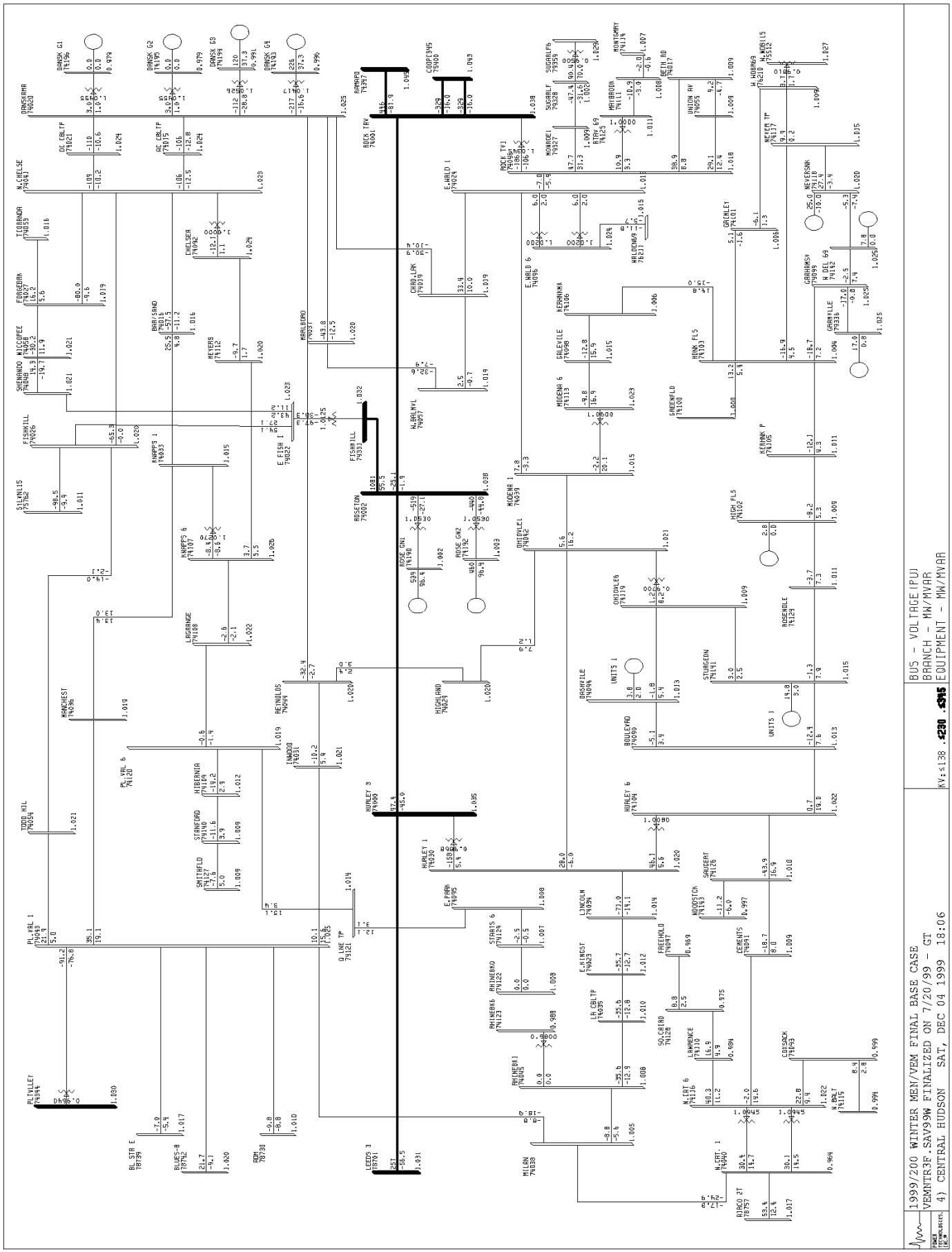

1999/2000 WINTER PEAK LOAD FLOW
LEVEL 5
HYDRO QUEBEC
LOAD = 32746 7666
BEAU-ST ISIDO 230
BEAU-ST LAW 230
CHATEAUGUAY HVDC
BEAUHARNOIS AC
CEDARS 115 AC
HIGHGATE HVDC
SANDY POND HVDC
EEL RIVER HVDC
MADAWASKA HVDC
NEW BRUNSWICK
LOAD = 3050 656
KESWICK-DARINGTN 345
426 58
239 -54
50 -21
101 -37
599-136
100 -8
100 -8
WHITEK21-KENORA 220
WHITEK22-KENORA 220
FABC
3004.6 -46.2
BLIP
753.4 321.7
OH GENERATION
MW MVAR
BRUCE 3100 438
DARLINGTN 3520 346
LAMBTON 1940 323
PICKERING 2040 -95
NANTICOKE 3880 925
LAKEVIEW 1094 355
SAUNDERS 848 298
L34P PS-MOSES E 230
L33P PS-MOSES E 230
OH-MAAP
199 124
ONTARIO HYDRO
LOAD = 24049 10395
OH VOLTAGES
RICHVIEW 243.8
BUCHANAN 244.1
MIDDLEPORT 533.3
CHERRYWOOD 527.0
NYPP VOLTAGES
ROCKTV345 358
HURLEY345 357
ROSETN345 358
W 49 345 355
E14 45345 355
FARRG 345 355
RAINEY345 356
MILLWD345 357
PL.VAL345 355
SPR.BR345 356
E.G.C.345 356
SHORE 345 354
COOPC 345 360
SOMER 345 361
GARD 230 225
HILL 230 218
MEYER 230 214
ROBIN 230 223
HUNT 230 227
DUNK 230 235
PACK 230 227
CLAY 345 366
VOLN 345 372
PORTR 230 237
ALPS 345 355
MAHWA 345 360
RAMPO 345 360
GILB 345 359
MOSES 230 238
NIAG 345 359
MASS 230 239
PANNL 345 356
NYPP LOADS
CH 864 309
CE 7808 4576
LILCO 3075 1244
NYSEG 2577 1132
NMPC 6377 1995
O&R 810 288
NYPA 1811 788
AG&E 1157 314
TOTAL 24479 10644
0 0
0 -3 -15
0 0
0 6 477
0 -34 -70
0 0
0 0
0 0
MOSES-SOUTH
133.2 -423.4
MASSENA 765 VOLTAGE
775
MARCY 765 VOLTAGE
780
ROCHESTER VOLTAGE
353
EDIC VOLTAGE
363
N.SCOTLND VOLTAGE
357
NEW ENGLAND
LOAD = 20100 3511
PLATS#3-GRAND ISLE 115
NYPP-NEPOOL
124.8 -43.7
LUDLO 345 355.5
MILBRY345 354.7
MRNCH 345 357.1
SOUTH 345 354.8
WHITEHAL-BLISSVILL 115
HODSICK1-BNNINGTTN 115
BEAR SWP-ROTTERDAM 230
ALPS-BERKSHIRE 345
PLT VLLEY-LONG MTN 345
96 2
12 0
1 1
-44 -11
1 -41
61 -3
OH-NYPP
-391.6 61.0
BECK A-NIAGARA 345
BECK B-NIAGARA 345
PA27REG-NIAGAR2W 230
BP37REG-PACKARD 230
-52 41
-52 42
-174 3
-111 -8
ONTARIO-MICHIGAN
388.7 136.7
SCOTT230-19BUNCE 230
L4D-195C 67 345
L51D-195C 67 345
J5D PS-19WATMNN 230
9 266
149 241
0 0
-22 -118
BECK #1-SWANN104 115
0 0
DYSINGER-EAST
2102.0 23.1
WEST-CENTRAL
1191.2 -175.7
TOTAL EAST
2761.7 73.5
CENTRAL EAST
1617.9 -34.7
WESTERN NYPP GENERATION
MW MVAR
KINTIGH 685 113
HUNTLY 67 185 100
HUNTLY 68 185 100
HUNT 115 340 157
DUNKIRK 4 185 120
DUNKIRK 3 190 120
DUNK 115 170 100
GINNA 469 10
NIAGARA 2815 713
4 MILEJ-DUNKIRK 230
WARREN -FALCONER115
HOMER CTY-STOLLE 345
HOMER CTY-WATACURE 345
E.TWNDA-HILLSIDE 230
E.SAYRE-NWAVERLY 115
OAKDALE VOLTAGE
352
WATERCURE VOLTAGE
339
LAUREL L-GOUDEY 115
BRANCHBG-RAMAPO 500
WALDWICK-SMAHAWH1 345
WALDWICK-SMAHAWH2 345
-167 45
74 22
157 -8
465 87
-20 6
-23 0
-22 14
271 -60
-470 -87
-512 -123
UPNY-SENY
2079.2 -164.1
UPNY-CONED
2202.5 -61.0
DUNWOODIE 345 VOLTAGE
355
DUNWOODIE-SOUTH
2016.7 -380.7
NRTPT PH-NR HAR 138
0 0
0 0
NEPOOL GENERATION
MW MVAR
CHSTR SVC N/A 0
SEABROOK 1150 135
ME YANKEE 0 0
BEAR SWMP 440 236
PILGRIM 670 72
MILLSTN 1 0 0
MILLSTN 2 868 48
MILLSTN 3 1146 48
NTHFD 1-4 750 79
CANAL 1&2 926 228
SALEM 3&4 493 47
WYMAN 1-4 237 30
BRAYT 1-4 1098 117
MYSTC 4-7 955 19
CONN YANK 0 0
N.BOST1&2 360 22
BRIDGP1-3 536 15
EASTERN NYPP GENERATION
MW MVAR
CHAT SVC1 N/A 101
CHAT SVC2 N/A -74
FRASER N/A -34
LEEDS N/A -293
GILBOA 1 250 38
GILBOA 2 0 0
GILBOA 3 250 38
GILBOA 4 0 0
IP 2 931 408
IP3 980 367
FITZ 820 340
9 MI 1 625 7
9 MI 2 1090 360
GINNA 469 10
OSWEGO 5 0 0
OSWEGO 6 0 0
ROSETON 1 539 96
ROSETON 2 460 96
BOWLINE 1 526 81
BOWLINE 2 404 70
SITHE 1043 478
JMC PH11 252 14
SABANAC 239 0
ECAR
ECAR-MECS
678.6 602.8
ECAR-MAAC
935.3 -170.7
ECAR-VACAR
-700.8 -229.3
VACAR
VACAR-MAAC
-207.3 109.6
MAAC
LOAD = 42088 9435
KEYSTONE 520.5 KV
JUNIATA 540.8 KV
ALBURTIS 539.7 KV
HOSENSACK 539.8 KV
LIMERICK 540.5 KV
BRANCHBRG 539.2 KV
PJM-NYPP
747.1 392.0
PJM-WEST
3813.7 -233.6
PJM-CENTRAL
1390.2 -398.3
PJM-EAST
3981.4 -507.5
HUDSON1-FARRAGUT1 345
HUDSON2-FARRAGUT2 345
LINDEN-GOETHALS 230
499 50
497 51
1 23
HMSTD HB-EGC 345
DUNWOODIE-SHORE RD 345
JAMAICA-LK SUCCESS 138
JAMAICA-VALSTRM 138
341 -47
750 165
-235 40
0 19
LILCO IMPORT
856.0 60.9

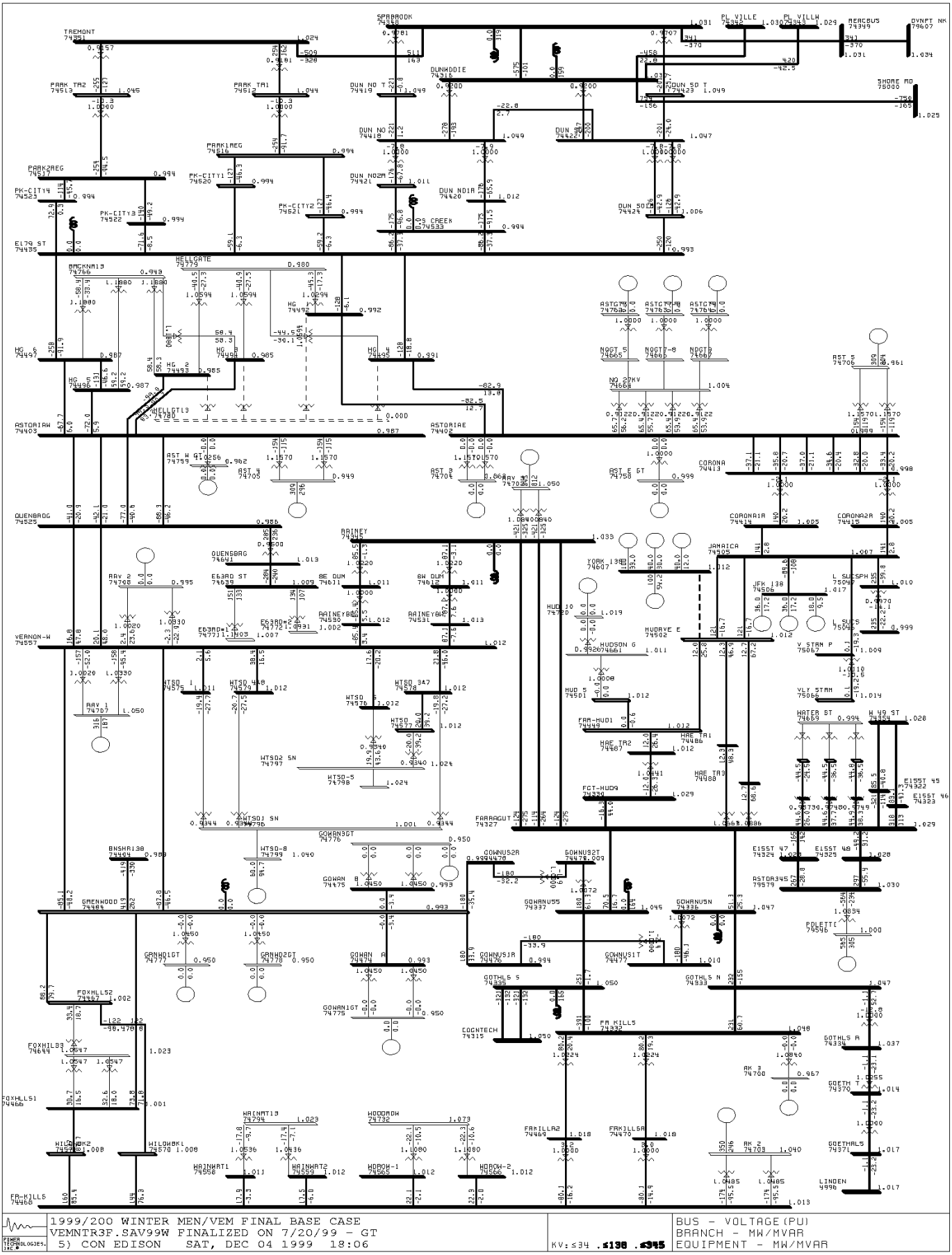

1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
1) WESTERN NYPP SAT, DEC 04 1999 18:06
KV: ≤138 , ≤230 , ≤345
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
POWER TECHNOLOGIES, INC.

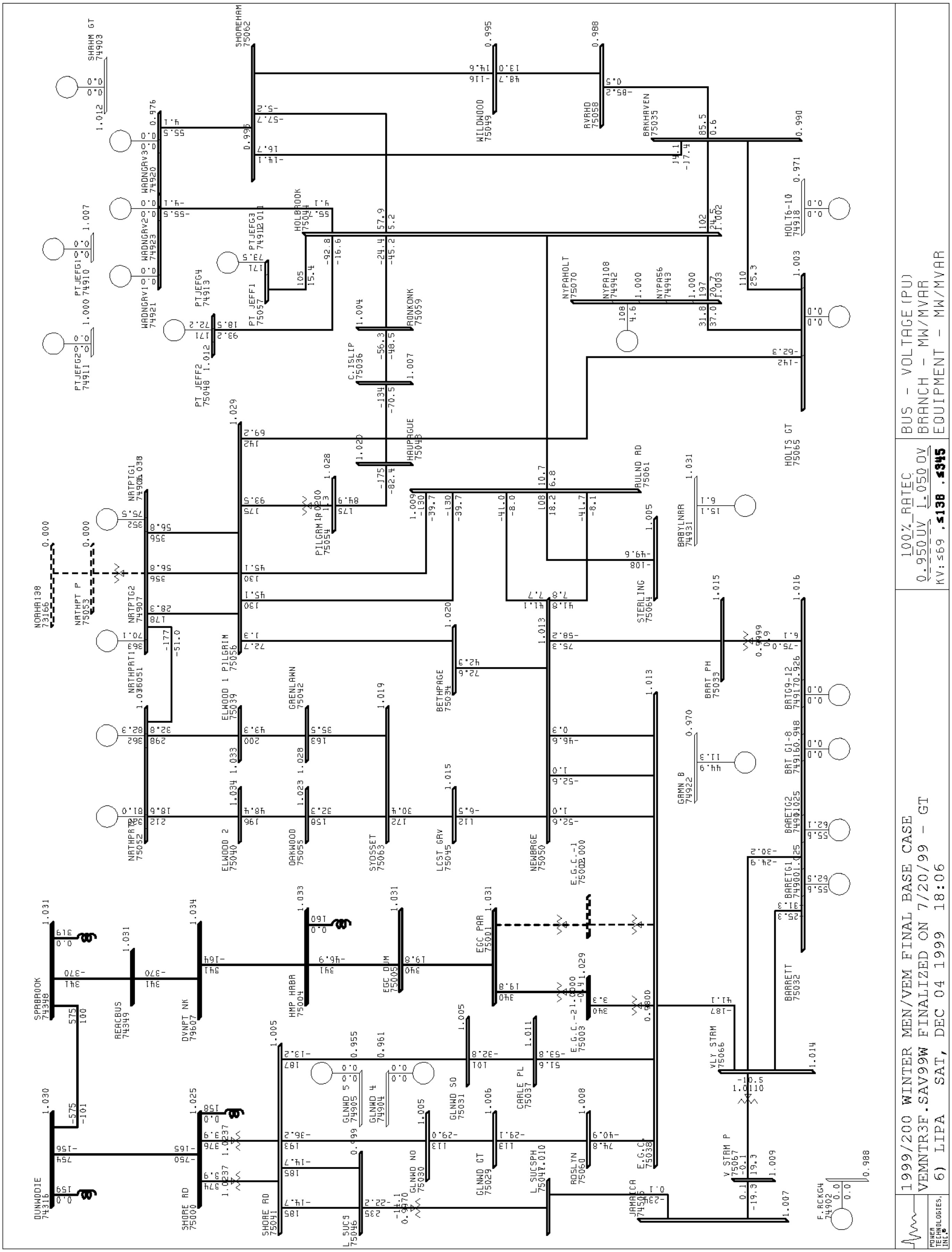

1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
2) EASTERN NYPP SAT, DEC 04 1999 18:06
KV: ≤138 , ≤230 , ≤345
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR

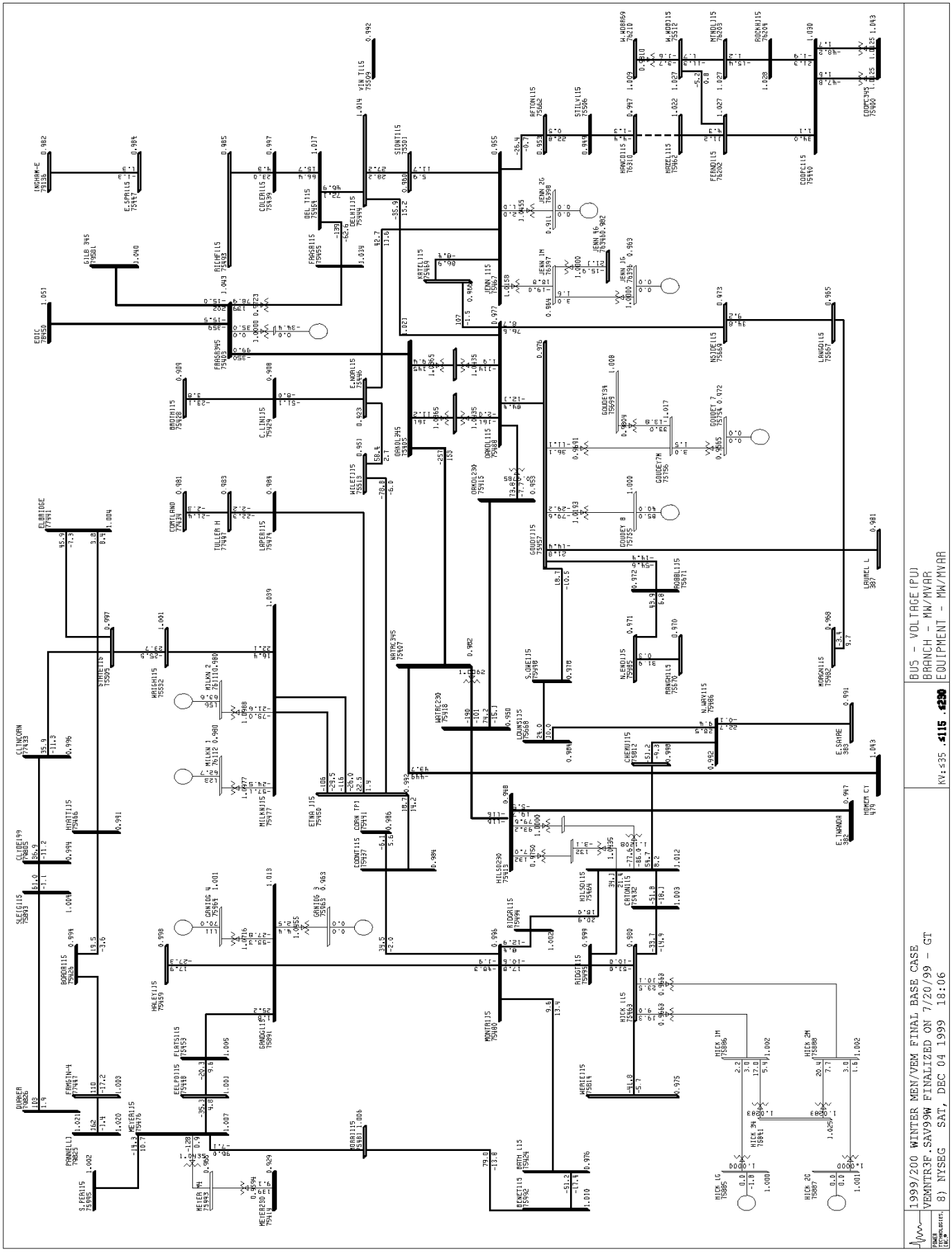


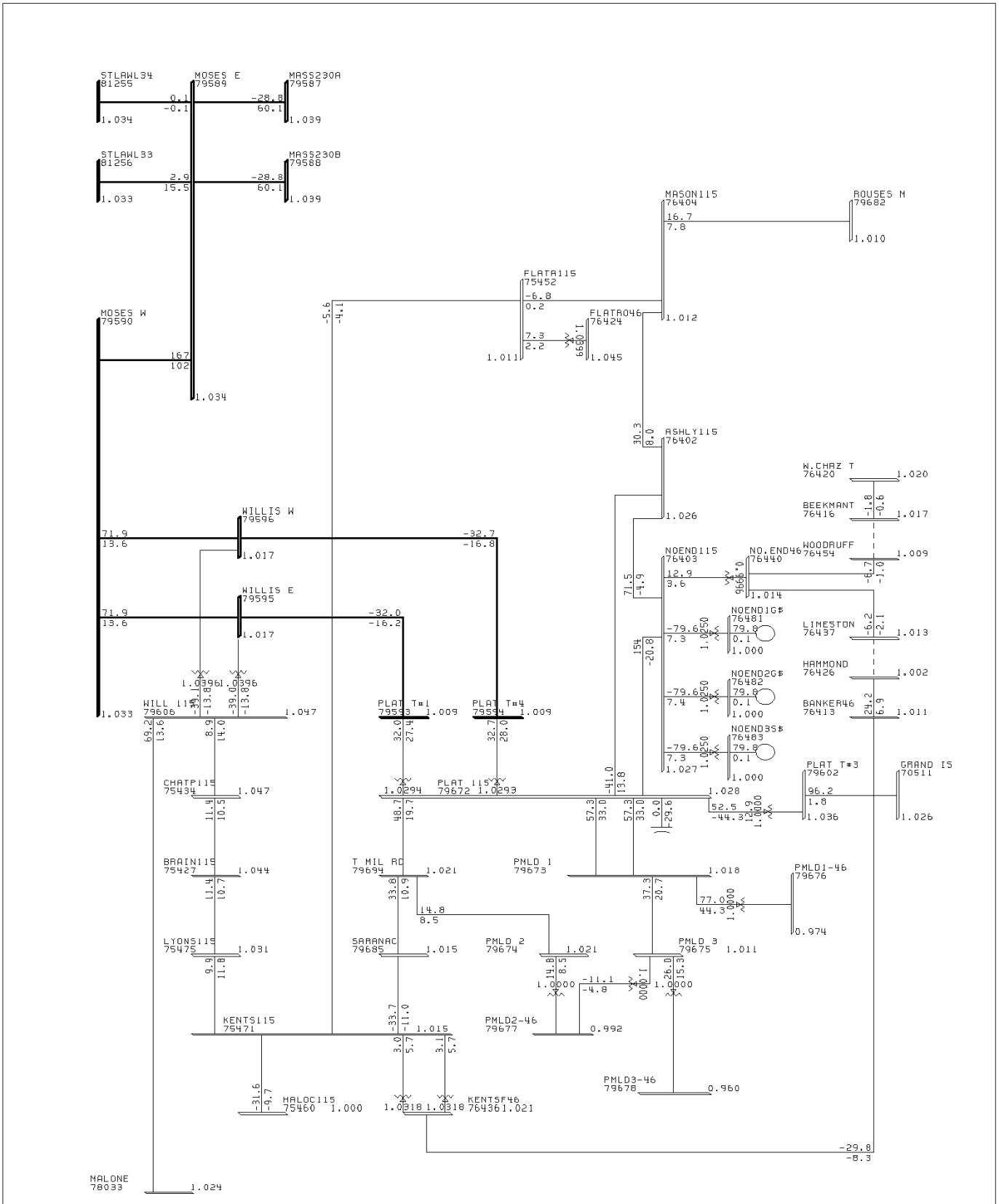
POWER TECHNOLOGIES, INC.	1999/200 WINTER MEN/VEM FINAL BASE CASE VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT 3) SOUTHERN NYPP SAT, DEC 04 1999 18:06	KV: ≤138 , ≤230 , ≤345	BUS - VOLTAGE(PU) BRANCH - MW/MVAR EQUIPMENT - MW/MVAR


1999/2000 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
4) CENTRAL HUDSON SAT, DEC 04 1999 18:06
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV:≤138 .230 .345


1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
5) CON EDISON SAT, DEC 04 1999 18:06
KV: ≤34 . ≤138 . ≤345
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR


1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
6) LIPA SAT, DEC 04 1999 18:06
BUS - VOLTAGE (PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
100% RATEC
0.950 UV 1.050 OV
KV: ≤69 , ≤138 , ≤345
POWER TECHNOLOGIES, INC.®

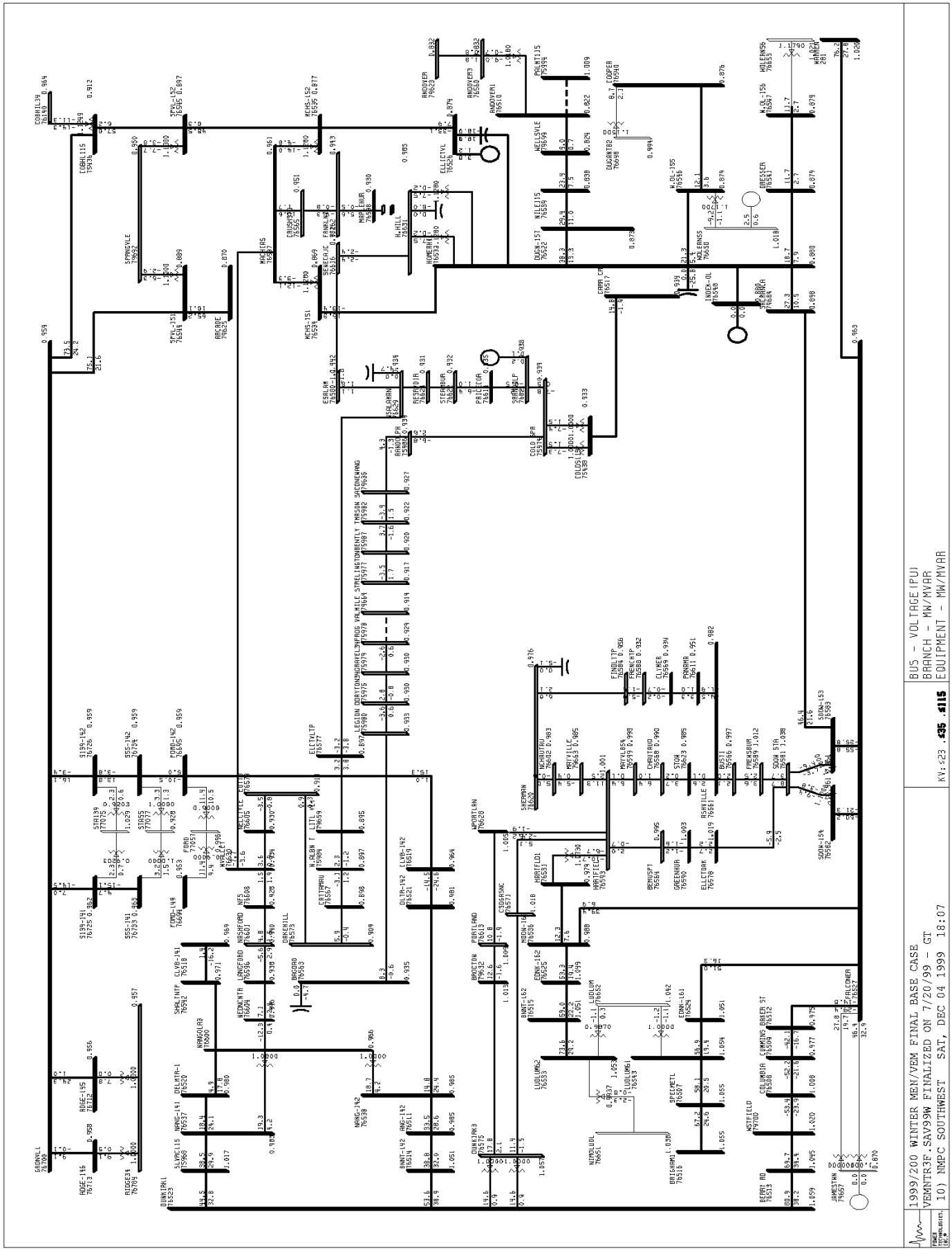

1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMWTR3F.SAV99W FINALIZED ON 7/20/99 - GT
8) NYSEG SAT, DEC 04 1999 18:06
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV≤35 ≤115 ≤230

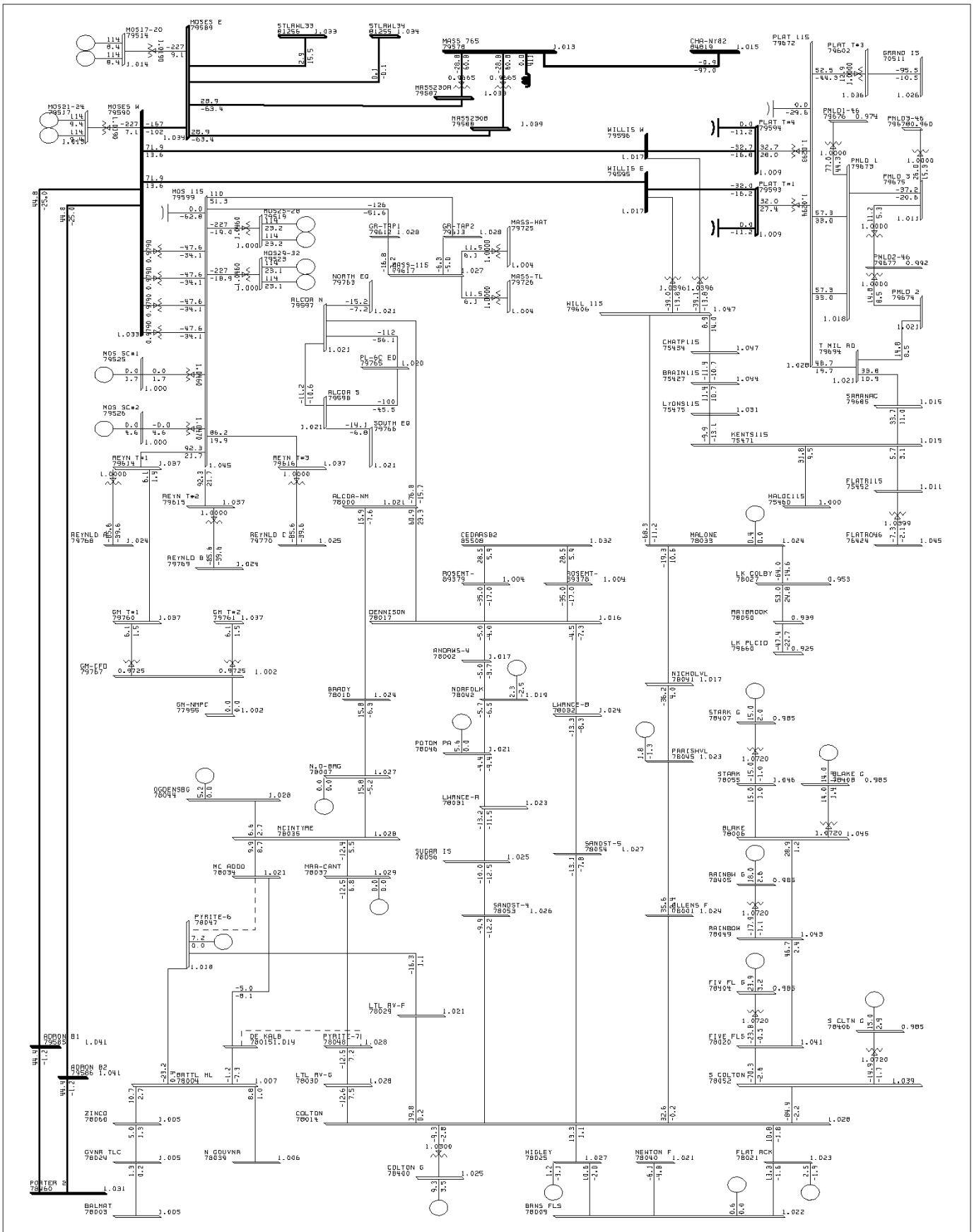


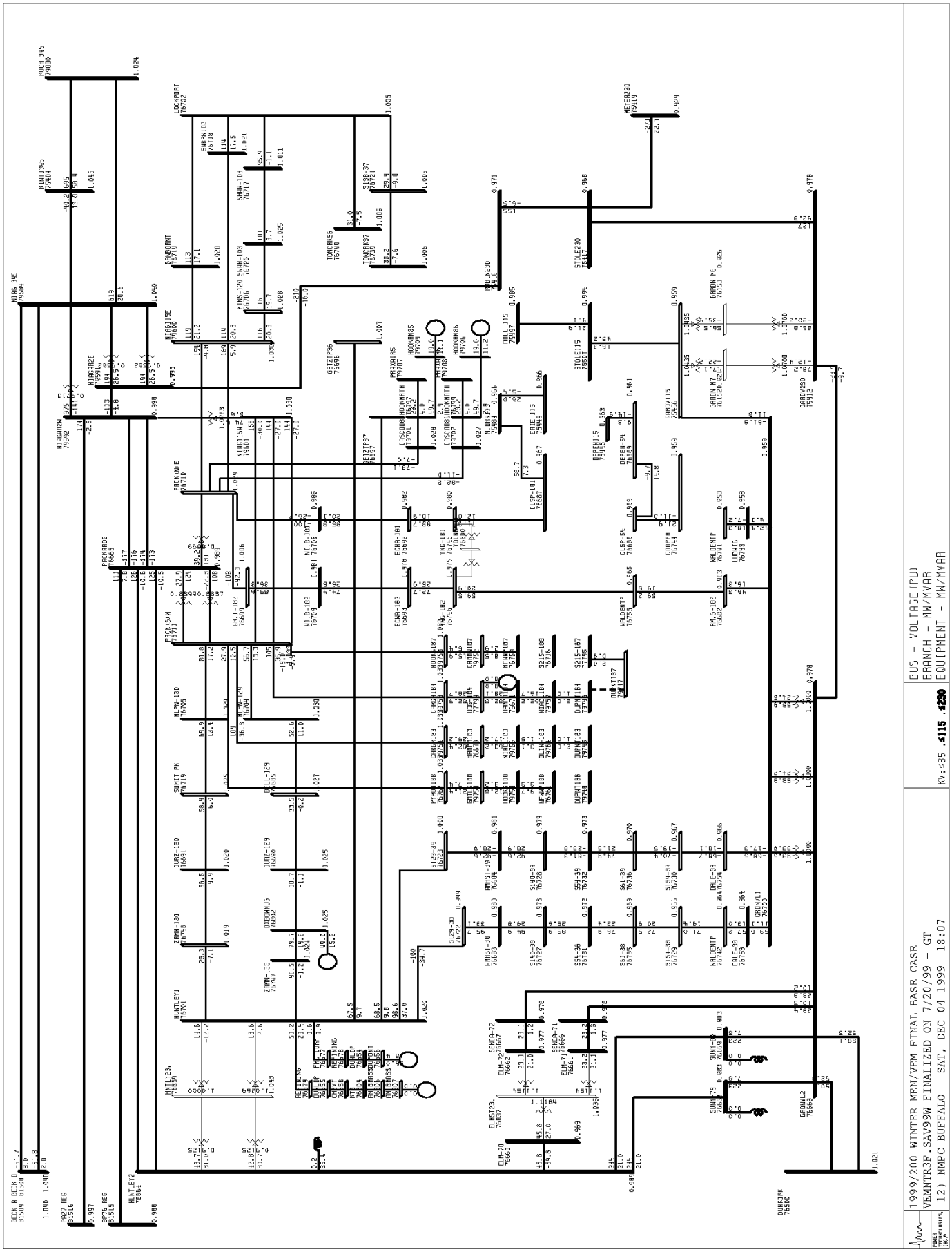
1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
9) NYSEG PLATTSBG SAT, DEC 04 1999 18:07

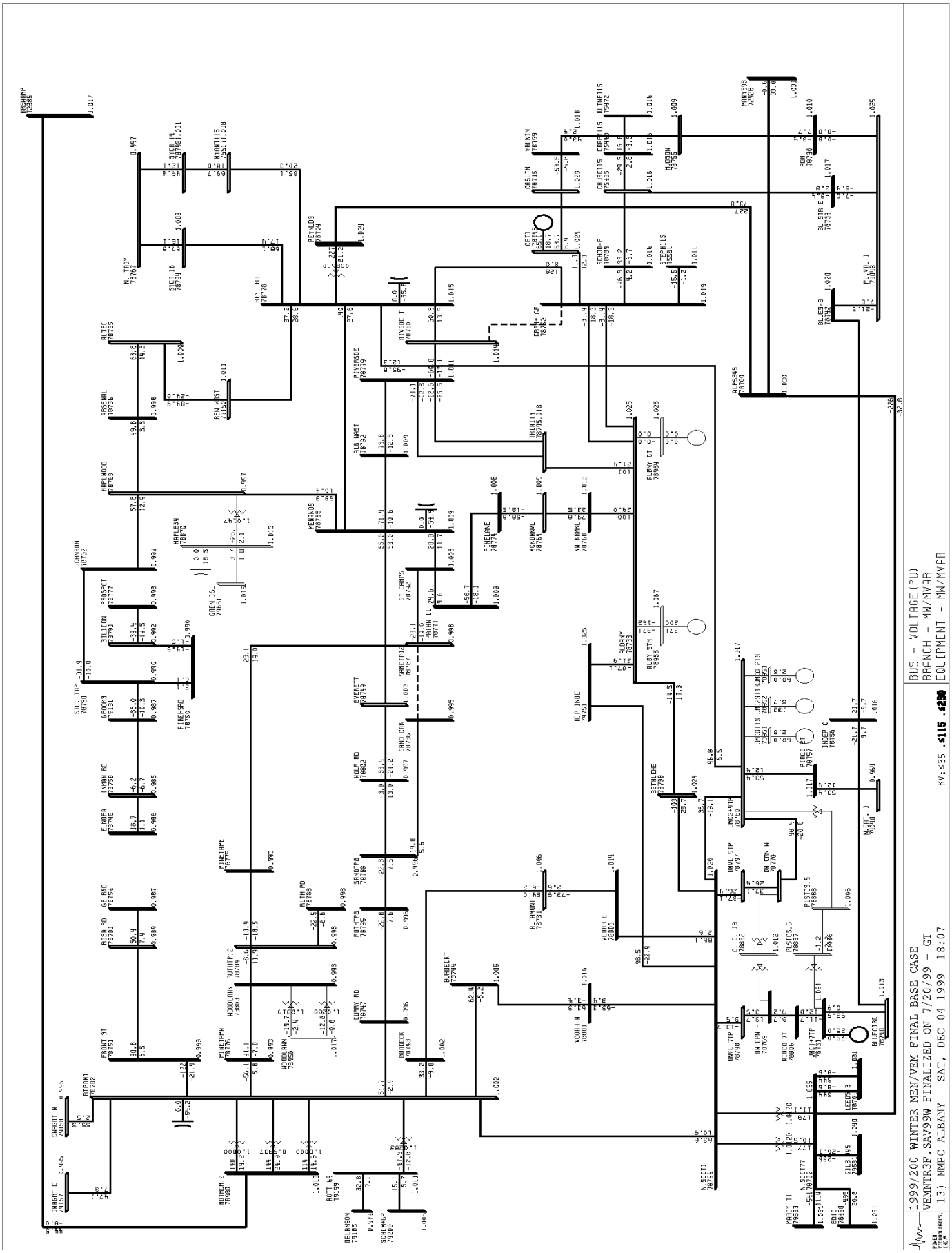
KV: ≤138 , ≤230 , ≤345

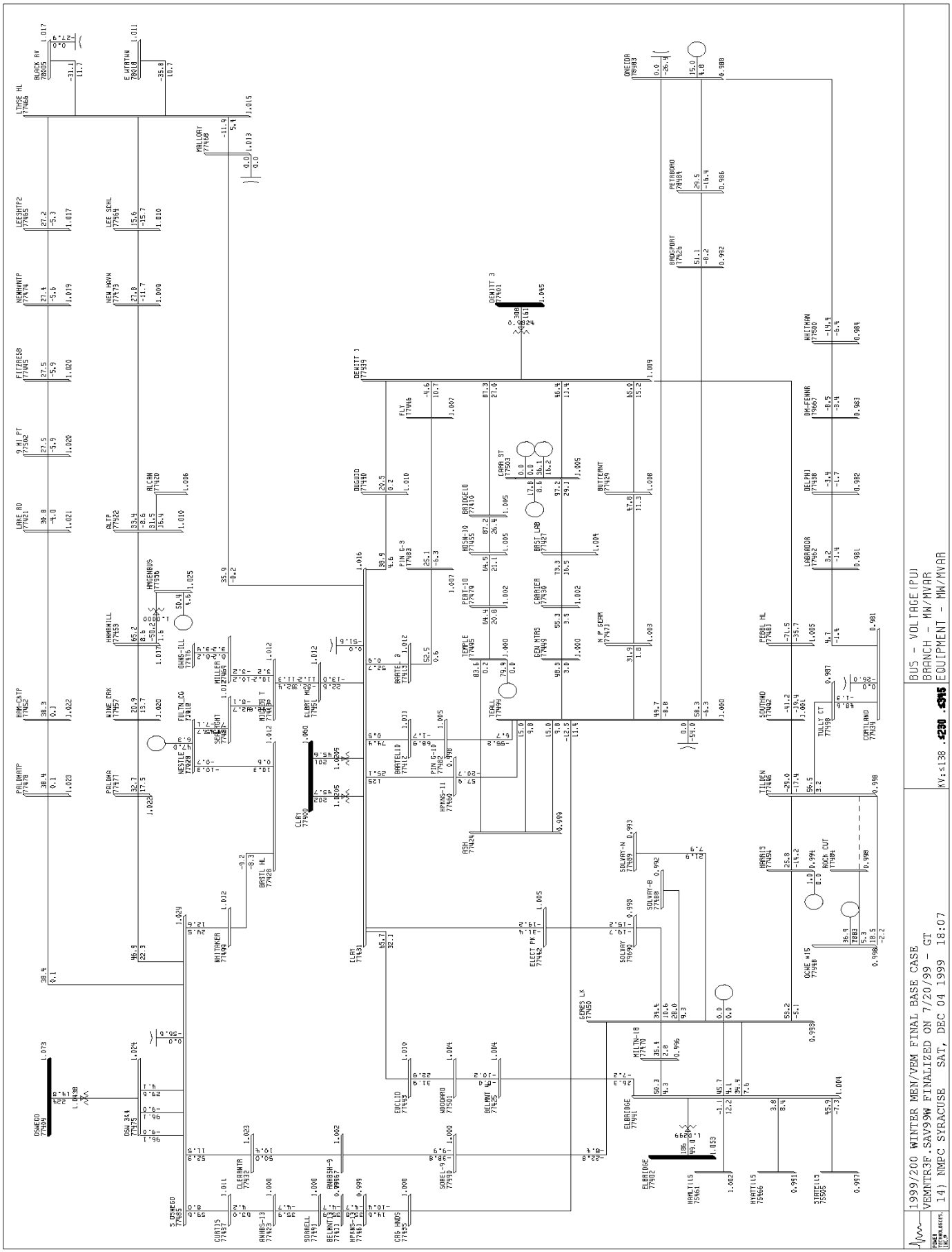
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR

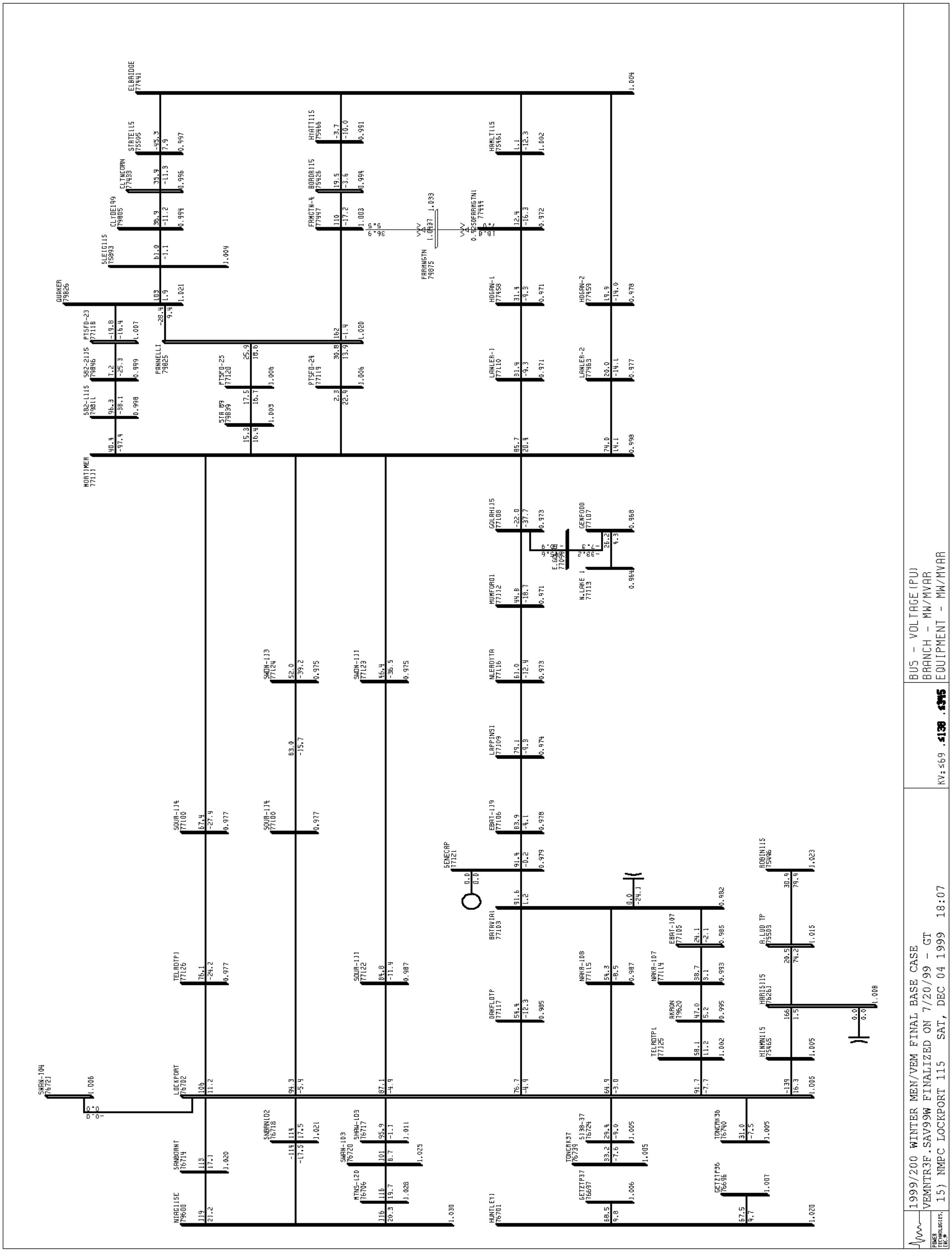

1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMWTR3F.SAV99W FINALIZED ON 7/20/99 - GT
10) NMPC SOUTHWEST SAT, DEC 04 1999 18:07
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV:≤23 .435 .115

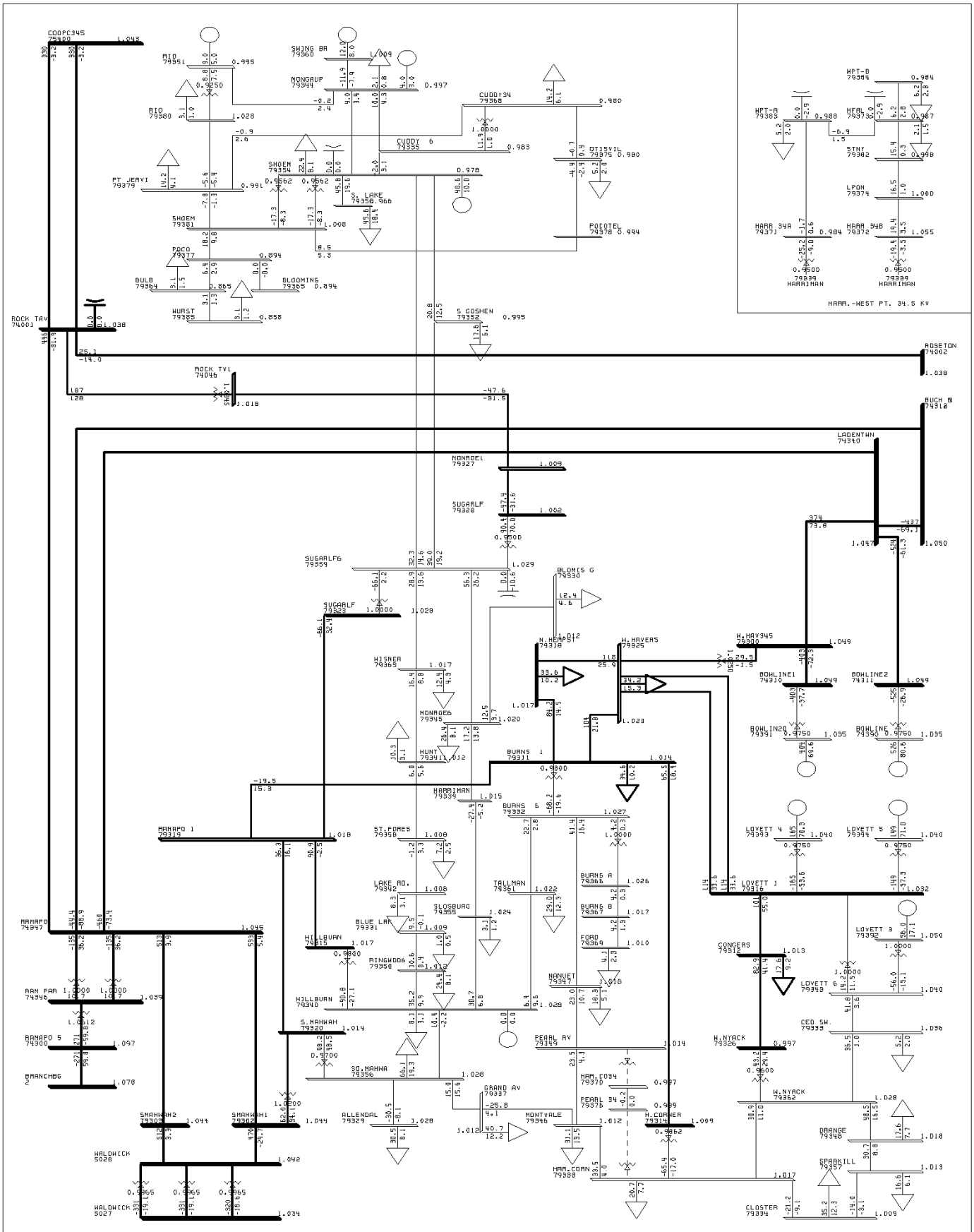

1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
11) NMPC NORTH SAT, DEC 04 1999 18:07
KV: ≤138 , ≤230 , ≤345
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR

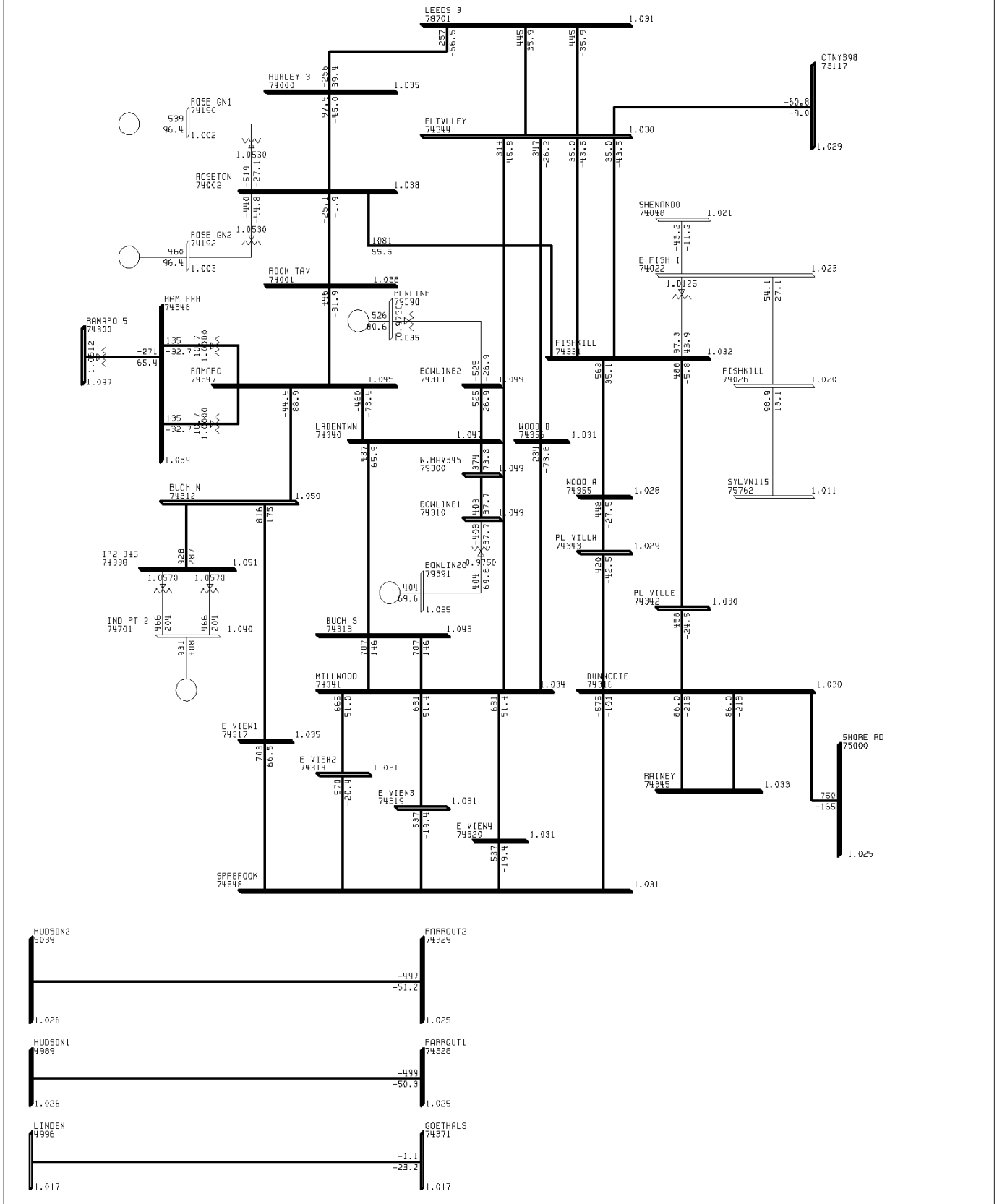

1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
12) NMPC BUFFALO SAT, DEC 04 1999 18:07
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV:≤35 ≤115 ≤230


1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMWTR3F.SAV99W FINALIZED ON 7/20/99 - GT
13) NMPC ALBANY SAT, DEC 04 1999 18:07
BUS - VOLTAGE (PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV: ≤35 ≤115 ≤230

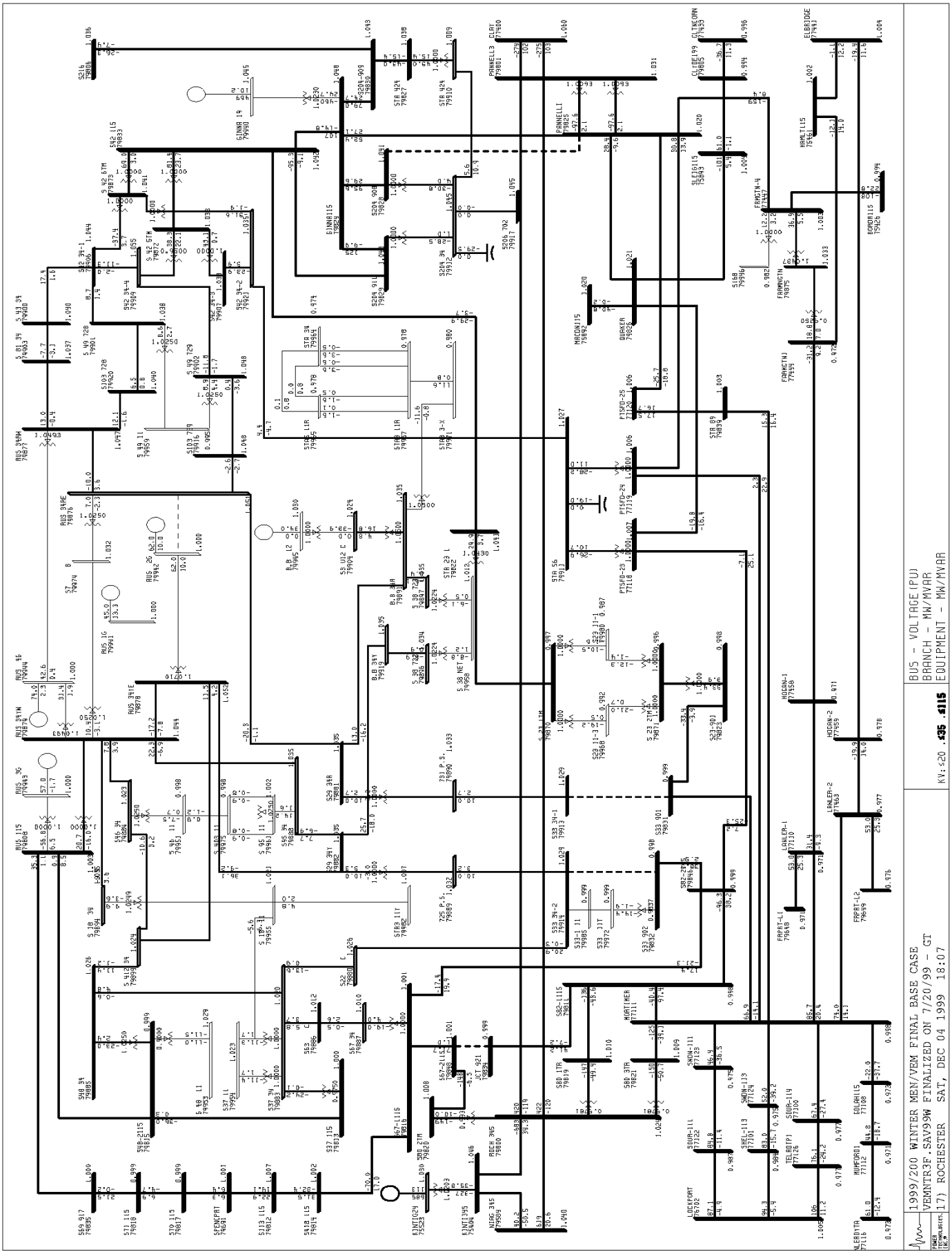

1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAY99W FINALIZED ON 7/20/99 - GT
14) NMPC SYRACUSE SAT, DEC 04 1999 18:07
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV≤138 .230 .345

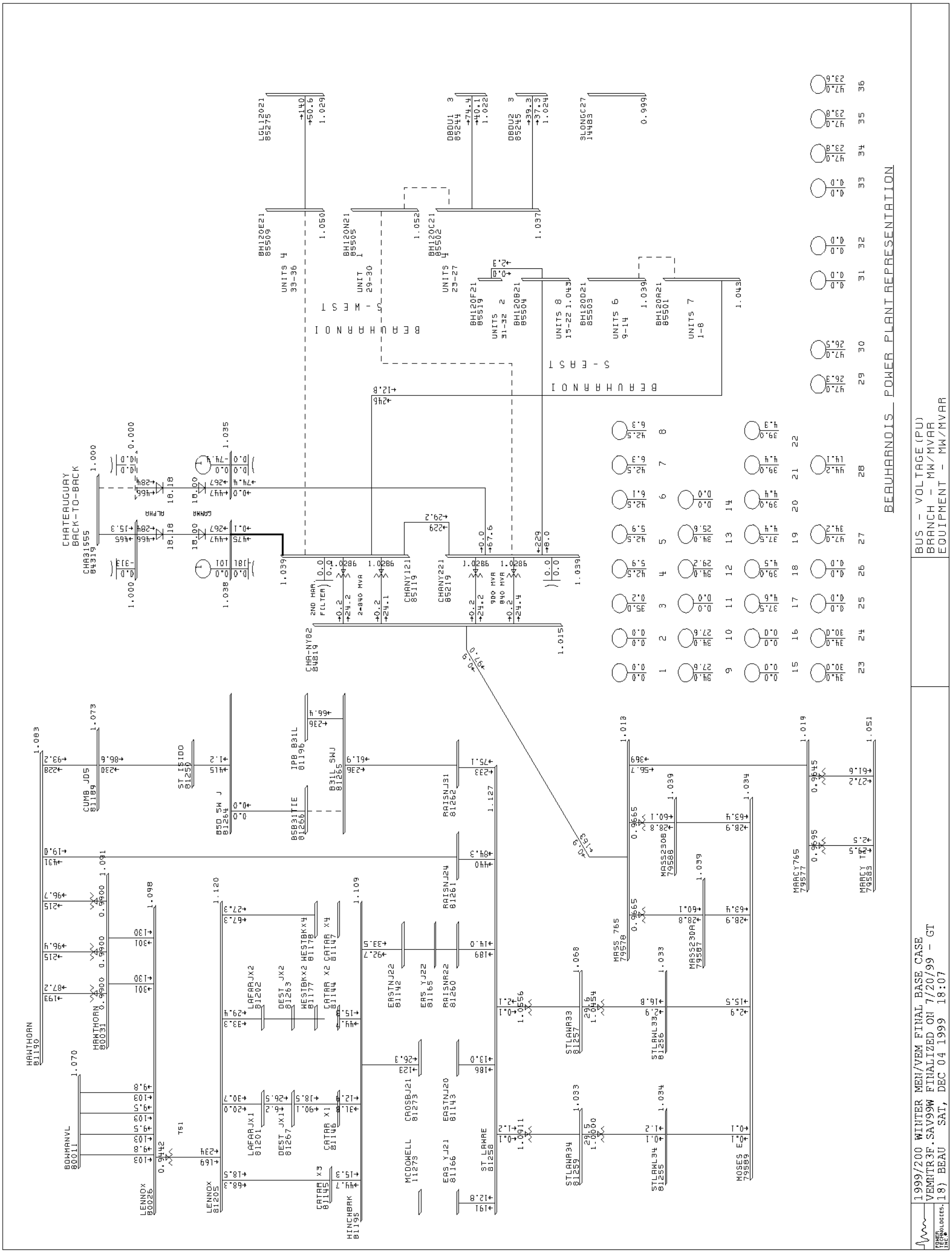

1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
15) NMPC LOCKPORT 115 SAT, DEC 04 1999 18:07
BUS - VOLTAGE (PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR

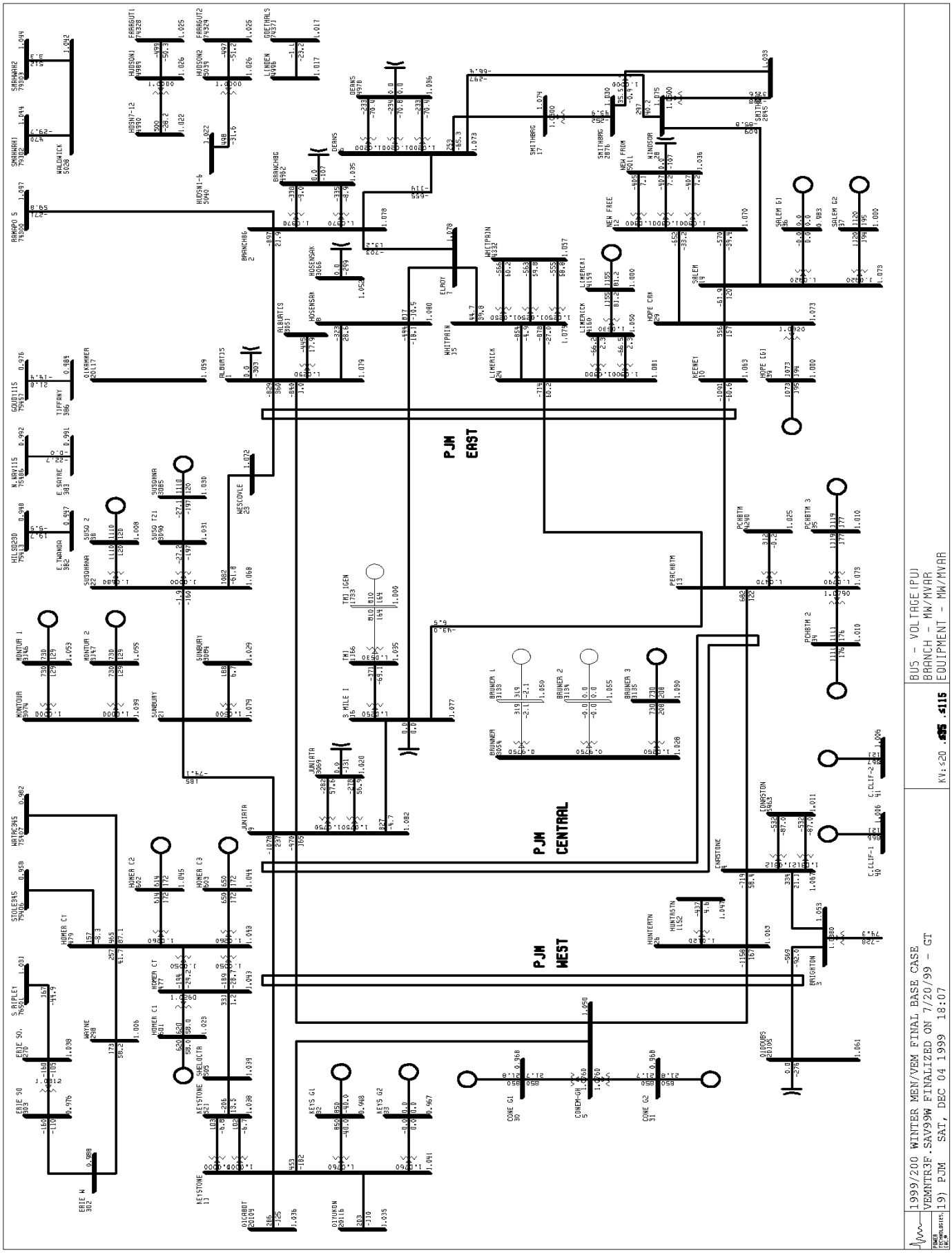

1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
16) ORANGE & ROCKLAND SAT, DEC 04 1999 18:07
KV: ≤69 .≤138 .≤345
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
HAAA.-WEST PT. 34.5 KV

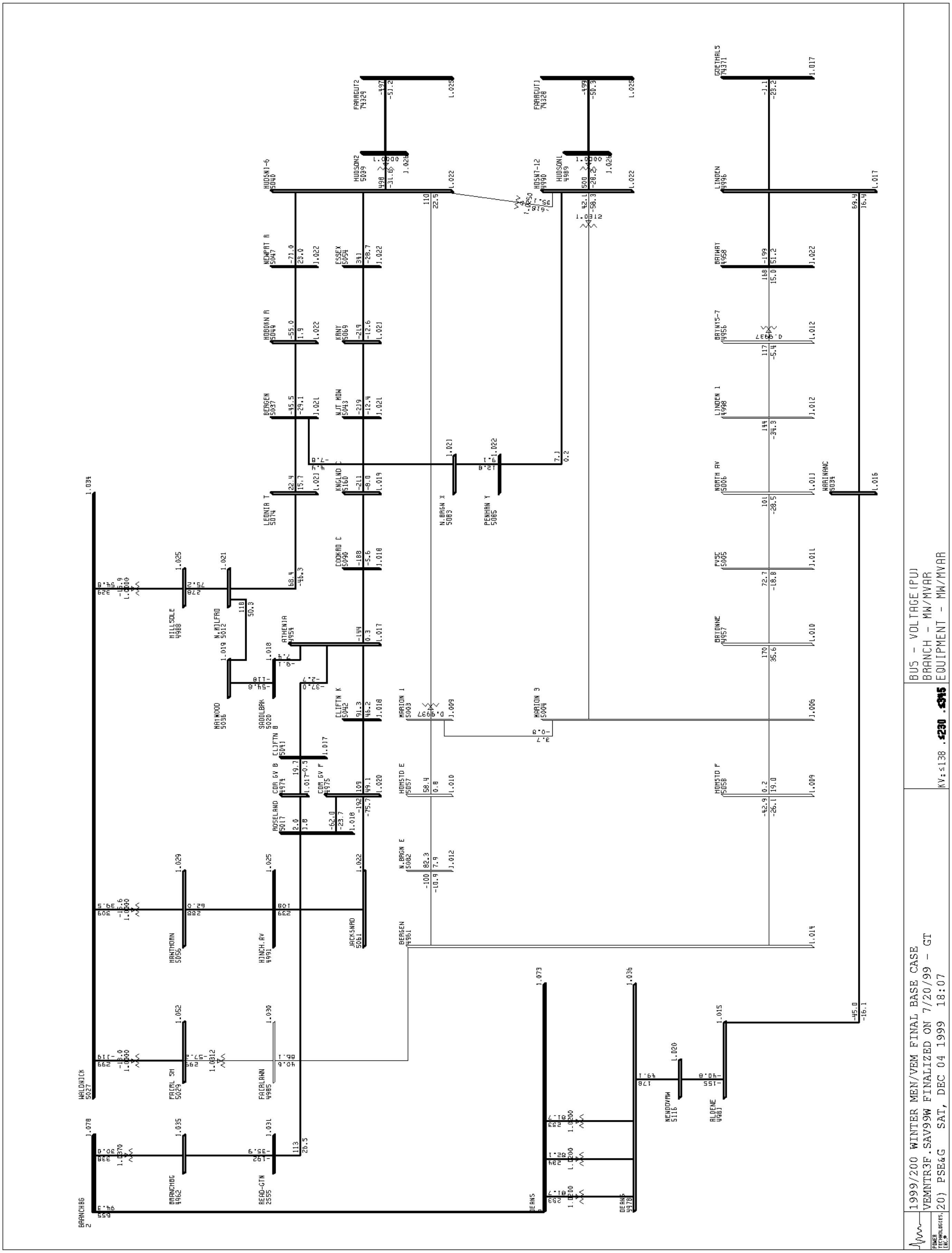


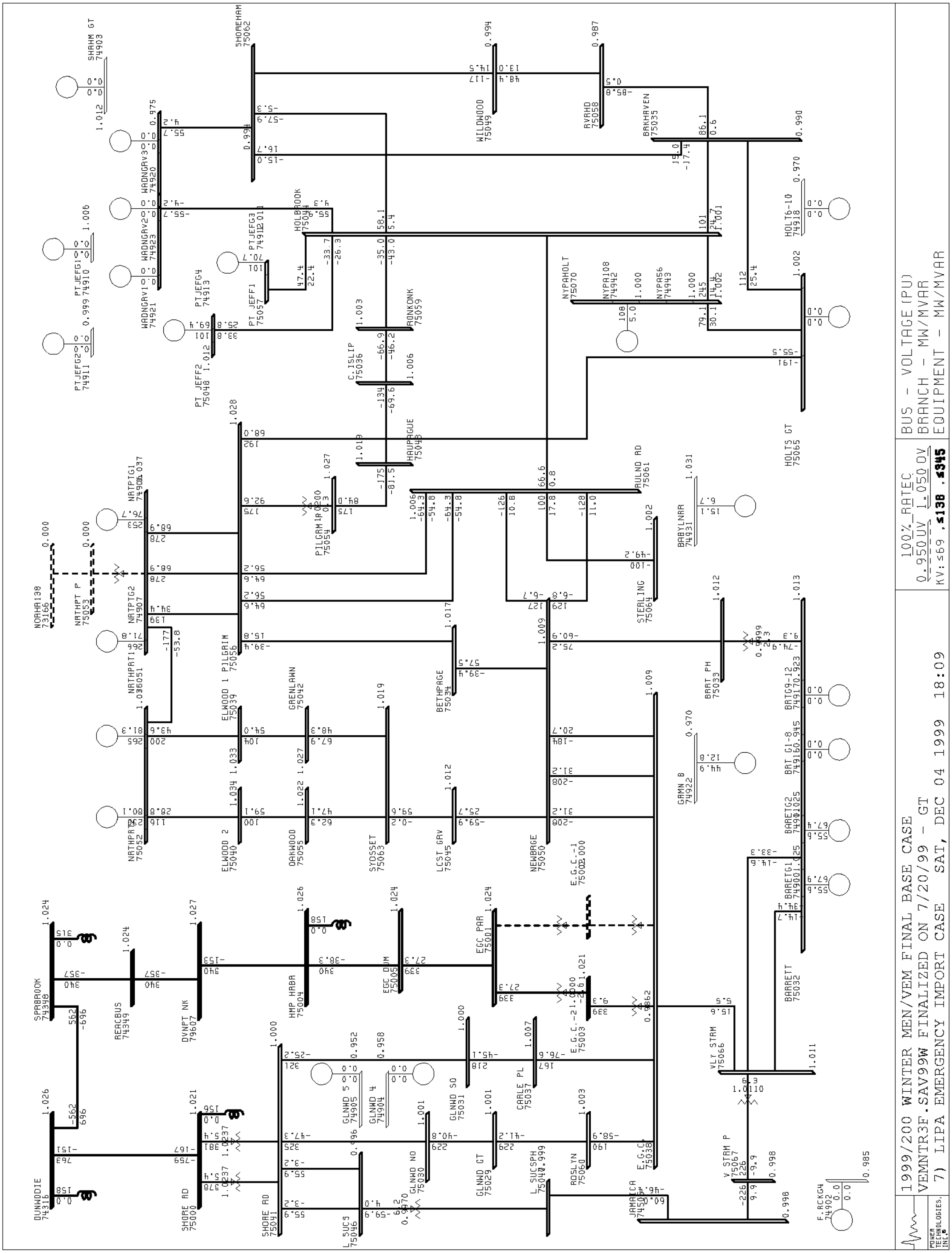
POWER TECHNOLOGIES, INC.	1999/200 WINTER MEN/VEM FINAL BASE CASE VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT 21) UPNY - CONED SAT, DEC 04 1999 18:07	KV: ≤115 . ≤230 . ≤345	


1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
17) ROCHESTER SAT, DEC 04 1999 18:07
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV:≤20 .635 .115


BEAUHARNOIS POWER PLANT REPRESENTATION
BUS - VOLTAGE (PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
18) BEAU SAT, DEC 04 1999 18:07


PJM EAST
PJM CENTRAL
PJM WEST
1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMWTR3F.SAV99W FINALIZED ON 7/20/99 - GT
19) PJM SAT, DEC 04 1999 18:07
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
KV:≤20 .85 .4115


1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
20) PSE&G SAT, DEC 04 1999 18:07
BUS - VOLTAGE (PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR


1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT
7) LIPA EMERGENCY IMPORT CASE SAT, DEC 04 1999 18:09
BUS - VOLTAGE(PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR

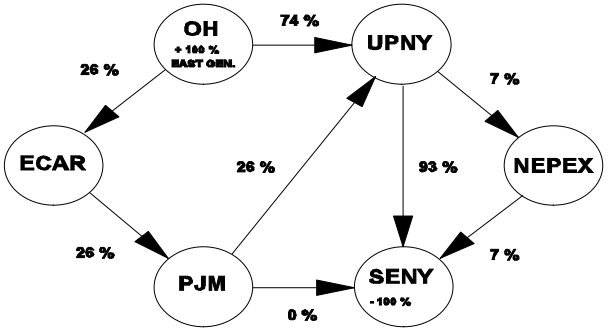
APPENDIX C

INTER-POOL WINTER 1999 TIE LINE

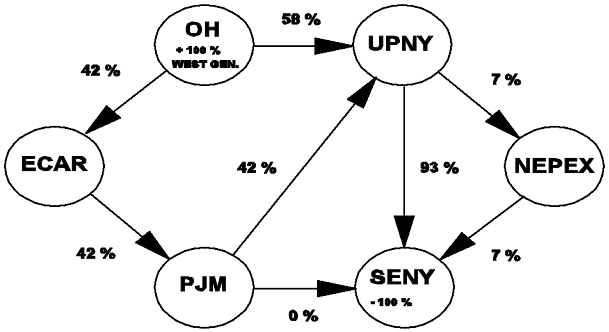
DISTRIBUTION FACTOR DIAGRAM

NYPP CROSS-STATE WINTER 1999

TIE LINE DIAGRAM FOR TRANSFER CONDITIONS



INTER-REGIONAL TRANSFER DISTRIBUTION FACTORS
(IN PERCENT) FOR OH-SENY TRANSFERS
PICKUP OH EASTERN GENERATION



INTER-REGIONAL TRANSFER DISTRIBUTION FACTORS
(IN PERCENT) FOR OH-SENY TRANSFERS
PICKUP OH WESTERN GENERATION

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APPENDIX D

RATINGS OF MAJOR TRANSMISSION FACILITIES

IN NEW YORK

NYPP WINTER 1999 OPERATING STUDY
WINTER ONLINE RATINGS

LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
ADM - HUDSON	12	145	151	159	343	69893	78730	-78755	1
ADRON B1 - MOSES W	MA-1	359	359	478	782	25269	79585	-79590	1
ADRON B2 - MOSES W	MA-2	447	473	517	784	25270	79586	-79590	1
ALBANY - AIR INDE	8	340	373	414	2817	25496	78733	-79751	1
ALCOA N - GR-TAP1	MAL-6	279	282	327	792	25582	79597	-79612	1
ALCOA-NM - ALCOA N	R8105	263	294	348	786	25202	78000	-79597	1
ALCOA-NM - BRADY	13	156	159	159	787	25230	78000	-78010	1
ALCOA-NM - BRADY	9	159	159	159	820	25230	78000	-78010	1
ALCOA-NM - DENNISON	12	202	221	238	788	25227	78000	-78017	1
ALLENS F - COLTON	3	145	152	159	846	25241	78001	-78014	1
ALPS345 - N.SCOT77	2	1278	1410	1780	993	25217	78700	-78702	1
ALPS345 - REYNLD3	1	585	676	796	994	25587	78700	-78704	1
ANDRWS-4 - DENNISON	5	222	234	278	861	25226	78002	-78017	1
ASTORIAE - CORONA	34186	177	254	394	133	25282	74402	-74413	1
ASTORIAE - CORONA	34185	177	254	394	132	25281	74402	-74413	2
ASTORIAE - CORONA	34184	177	254	394	131	25280	74402	-74413	3
ASTORIAE - CORONA	34183	177	254	394	130	25279	74402	-74413	4
ASTORIAE - CORONA	34182	177	254	394	129	25278	74402	-74413	5
ASTORIAE - CORONA	34181	177	254	394	128	25277	74402	-74413	6
ASTORIAE - HG 1	34052	184	259	401	134	25324	74402	-74492	1
ASTORIAE - HG 4	34051	184	259	401	135	25323	74402	-74495	1
ASTORIAW - HG 2	24054	171	207	207	146	25213	74403	-74493	1
ASTORIAW - HG 3	24053	171	207	207	147	25212	74403	-74494	1
ASTORIAW - HG 5	24051	202	283	489	148	25210	74403	-74496	1
ASTORIAW - HG 6	24052	202	283	489	149	25211	74403	74497	1
ASTORIAW - QUENBRDG	28243	355	508	645	152	25317	74403	-74525	2
ASTORIAW - QUENBRDG	28241	177	254	394	151	25315	74403	-74525	3
ASTORIAW - QUENBRDG	28242	177	254	394	150	25316	74403	-74525	4
BARRETT - BRRT PH	461	208	285	297	2	25155	75032	75033	1
BARRETT - VLY STRM	291	262	331	421	9	25312	75032	-75066	1
BARRETT - VLY STRM	292	262	331	421	10	25313	75032	-75066	2
BATAVIA1 - EBAT-107	107	145	152	159	636	25124	77103	-77105	1
BATAVIA1 - NAKR-108	108	158	159	159	647	25125	77103	-77115	1
BATAVIA1 - OAKFLDTP	112	156	162	181	446	25126	77103	-77117	1
BELL-129 - DURZ-129	129	199	199	199	765	69854	76685	-76690	1
BELL-129 - MLPN-129	129	199	199	199	765	69854	76685	-76704	1
BLISSVIL - WHITEHAL	7/K37	222	234	239	1065	25028	70525	-79167	1
BLUE LAK - LAKE RD.	89/993	137	151	157	483	69353	79331	-79342	1
BLUE LAK - RINGWOD6	89/993	137	151	157	483	69353	79331	-79350	1
BNNINGTN - HOOSICK	6	159	159	159	1022	25029	70522	-79135	1
BORDR115 - FRMGTN-4	977/4	187	208	221	507	25057	75426	-77447	1
BORDR115 - HYATT115	979	157	171	179	506	25106	75426	-75466	1
BOWLINE1 - W.HAV345	67	777	837	837	164	25567	74310	-79300	10
BOWLINE2 - LADENTWN	68	777	837	837	166	25249	74311	-74340	1
BRAIN115 - CHATP115	1/911	149	172	199	815	68495	75427	-75434	1
BRANCHBG - RAMAPO 5	5018	1158	1416	1924	366	25019	2	-74300	1
BRSWAMP - ROTRDM.2	E205W	511	545	574	1063	25030	72385	-78980	1
BUCH N - E VIEW1	W93	1822	2010	2555	175	25133	74312	-74317	1
BUCH N - RAMAPO	Y94	1822	2010	2555	178	25184	74312	-74347	1
BUCH S - IP3 345	W96	1793	1793	2266	179	25570	74313	-79582	1
BUCH S - LADENTWN	Y88	1822	2010	2555	180	25185	74313	-74340	1
BUCH S - MILLWOOD	W98	1828	1976	2163	182	25146	74313	-74341	1
BUCH S - MILLWOOD	W97	1822	1976	2163	181	25247	74313	-74341	2
BURNS 1 - W.HAVERS	530/531	274	302	313	473	68644	79311	-79325	1
BURNS 6 - TALLMAN	59/591	112	122	126	469	68642	79332	-79361	1
CARLE PL - E.G.C.	361	304	334	364	18	25533	75037	-75038	1
CARML115 - UNION115	991/992	261	287	303	190	68885	75431	-75765	1
CATON115 - HICK 115	958/960	119	120	120	574	69341	75432	-75463	1
CHATP115 - WILL 115	1/911	149	172	199	815	68495	75434	-79606	1
CLAY - CLAY	BK#1	354	410	448	826	25387	77400	-77431	1
CLAY - CLAY	BK#2	354	410	448	827	25421	77400	-77431	1
CLAY - DEWITT 3	13	1348	1434	1434	835	25168	77400	-77401	1
CLAY - DUGUID	5	245	260	282	829	25519	77431	77440	1
CLAY - EDIC	2-15	1348	1434	1434	837	25200	77400	-78450	1
CLAY - EDIC	1-16	1348	1434	1434	836	25169	77400	-78450	2
CLAY - HPKNS-11	11	239	239	239	831	25516	77431	77460	1
CLAY - HPKNS-11	10	141	144	165	834	25520	77431	77460	1
CLAY - PANNELL3	2	1195	1314	1434	768	25050	77400	79801	1
CLAY - PANNELL3	1	1195	1314	1434	769	25058	77400	79801	2
CLAY - VOLNEY	6	1348	1434	1434	838	25198	77400	-77406	1
CLAY - 9MI PT1	8	1278	1410	1792	839	25167	77400	-77407	1
CLINTON - MARSH115	11/12	152	159	159	1012	68794	79127	-79141	1
CLTNCORN - CLYDE199	3	152	166	175	509	25221	77433	-79805	1
COBHL115 - COBHIL34	906	45	47	53	513	25426	76140	75436	1

NYPP WINTER 1999 OPERATING STUDY
WINTER ONLINE RATINGS

LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
CODNT115 - ETNA 115	998	266	293	299	515	25734	75437	-75450	1
CODNT115 - MONTR115	982	107	118	125	516	25728	75437	75480	1
COOPC345 - COOPC115	#2	248	298	300	519	25433	75400	-75440	1
COOPC345 - COOPC115	#3	270	300	300	520	25434	75400	-75440	2
COOPC345 - FRASR345	33	1482	1631	1793	521	25236	75400	-75403	1
COOPC345 - MARCY T1	41	1345	1345	1345	2803	25113	75400	79583	1
CORONA1R - JAMAICA	18001	184	259	401	185	25285	74414	-74505	1
CORONA2R - JAMAICA	18002	184	259	401	186	25286	74415	-74505	1
CORTLAND - TULLER H	947	133	149	162	631	25059	77434	77497	1
CROTN115 - UNION115	991/992	261	287	303	190	68885	75760	-75765	1
CTNY398 - PLTVLLEY	398	1283	1476	1635	349	25033	73117	-74344	1
DENNISON - LWRNCE-B	4	222	234	278	796	25225	78017	-78032	1
DENNISON - LWRNCE-B	4	222	234	278	935	25225	78017	-78032	1
DEPEW115 - DEPEW-54	921/54	120	120	120	533	25086	75445	-76689	1
DEWITT 3 - DEWITT 1	2	619	757	796	862	25418	77401	-77439	1
DEWITT 3 - LAFAYTTE	22	1434	1434	1434	866	25174	77401	-77403	1
DUN NO - DUN SO	99997	280	359	383	194	25532	74418	-74422	1
DUN NO1R - S CREEK	99031	129	205	290	197	25193	74420	-74533	1
DUN NO2R - S CREEK	99032	129	205	290	198	25239	74421	-74533	1
DUN SO1R - E179 ST	99153LM	252	348	439	203	25287	74424	74435	1
DUNKIRK - DUNKIRK1	41	167	204	250	657	25386	76500	-76523	1
DUNKIRK - DUNKIRK1	31	164	199	250	656	25430	76500	-76523	1
DUNKIRK - GRDNVL2	73	637	637	637	663	25166	76500	-76663	1
DUNKIRK - GRDNVL2	74	637	637	637	664	25197	76500	-76663	1
DUNWODIE - DUN NO	W74	414	540	664	195	25209	74316	-74418	1
DUNWODIE - DUN SO	W73	414	540	664	202	25208	74316	-74422	1
DUNWODIE - PL VILLE	W89	1976	2282	2538	206	25182	74316	-74342	1
DUNWODIE - PL VILLW	W90	1976	2282	2538	205	25250	74316	-74343	1
DUNWODIE - RAINEY	72	769	871	1113	208	25191	74316	74345	3
DUNWODIE - RAINEY	71	769	871	1113	207	25151	74316	-74345	4
DUNWODIE - SHORE RD	Y50	664	925	1442	115	25091	74316	-75000	1
DUNWODIE - SPRBROOK	W75	2838	3185	3662	209	25071	74316	-74348	1
DURZ-130 - SUMIT PK	130	211	217	239	764	69855	76691	-76719	1
DURZ-130 - ZRMN-130	130	211	217	239	764	69855	76691	-76748	1
E FISH I - FISHKILL	F33	505	530	530	2868	25724	74022	74331	1
E VIEW1 - EASTVIEW	87874	438	493	493	211	25471	74317	-74428	1
E VIEW1 - SPRBROOK	W79	1976	2384	2895	224	25153	74317	-74348	1
E VIEW2 - EASTVIEW	87873	438	493	493	210	25472	74318	-74428	1
E VIEW2 - MILLWOOD	W82	2430	2821	3349	225	25147	74318	-74341	1
E VIEW2 - SPRBROOK	W64	2430	2821	3349	223	25143	74318	-74348	1
E VIEW3 - EASTVIEW	87872	438	493	493	212	25470	74319	-74428	1
E VIEW3 - MILLWOOD	W99	2430	2821	3349	222	25255	74319	-74341	1
E VIEW3 - SPRBROOK	W65	1976	2384	2895	226	25144	74319	-74348	2
E VIEW4 - EASTVIEW	87871	438	493	493	2835	25373	74320	-74428	1
E VIEW4 - MILLWOOD	W85	2430	2821	3349	325	25258	74320	-74341	1
E VIEW4 - SPRBROOK	W78	2430	2821	3349	2834	25346	74320	-74348	1
E.G.C. - NEWBRGE	463	244	366	434	25	25304	75038	-75050	2
E.G.C. - NEWBRGE	465	262	344	442	26	25304	75038	-75050	2
E.G.C. - NEWBRGE	462	244	366	434	24	25303	75038	-75050	3
E.G.C. - ROSLYN	362	320	352	383	28	25534	75038	-75060	1
E.G.C. - VLY STRM	262	245	319	408	30	25244	75038	-75066	1
E.NOR115 - JENN 115	946	117	136	153	530	25729	75446	75467	1
E.NOR115 - WILET115	945	133	149	162	531	25732	75446	-75513	1
E.SAYRE - N.WAV115	956	102	139	139	608	25013	383	-75486	1
E.SPR115 - INGHAM-E	941	114	131	152	536	25061	75447	-79136	1
E.SPR115 - INGHAM-E	7/942	114	120	120	535	69022	75447	-79136	1
E.TWANDA - HILSD230	70	512	564	598	582	25014	382	75413	1
E.WALD 1 - ROCK TV1	D	255	282	350	416	69038	74024	-74046	2
EDIC - JA FITZP	1	1434	1434	1912	867	25077	78450	79580	1
EDIC - MARCY T1	UE1-7	1792	1792	1792	868	25229	78450	-79583	1
EDIC - N.SCOT77	14	1624	1783	1792	873	25170	78450	-78702	1
EDIC - PORTER 1	10	524	602	760	871	25424	78450	-78485	1
EDIC - PORTER 1	20	602	721	796	870	25454	78450	-78485	2
EDIC - PORTER 2	17	551	626	637	872	25422	78450	-78460	1
ELBRIDGE - ELBRIDGE	BK#1	542	621	796	874	25448	77402	-77441	1
ELBRIDGE - LAFAYTTE	17	940	1562	1912	880	25149	77402	-77403	1
ELBRIDGE - OSWEGO	17	1278	1410	1792	881	25234	77402	-77404	1
ELWOOD 1 - NRTHPRT2	681	398	536	677	33	25544	75039	-75052	1
ELWOOD 2 - NRTHPRT2	678	398	536	677	2863	25543	75040	-75052	1
ERIE E - S RIPLEY	69	553	637	637	665	25016	361	76501	1
ERIE 115 - N.BRW115	181/922	146	160	178	534	69088	75449	-75484	1
ETNA 115 - WILET115	945	133	149	162	540	25731	75450	75513	1

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LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
E15ST 45 - E13 ST	37375	258	305	321	228	25468	74322	-74434	15
E15ST 45 - FARRAGUT	45	783	920	1285	234	25190	74322	-74327	1
E15ST 45 - W 49 ST	M55	828	920	1312	237	25222	74322	-74354	1
E15ST 46 - E13 ST	37373	252	341	395	230	25465	74323	-74434	12
E15ST 46 - FARRAGUT	46	783	920	1285	236	25251	74323	-74327	1
E15ST 46 - W 49 ST	M54	828	920	1312	235	25228	74323	-74354	1
E15ST 47 - ASTOR345	Q35L	598	675	1595	139	25134	74324	-79579	1
E15ST 47 - E RIVER	44371	255	295	314	217	25459	74324	-74632	17
E15ST 47 - E13 ST	37378	258	344	426	231	25469	74324	-74434	16
E15ST 47 - FARRAGUT	B47	492	726	1151	238	25177	74324	-74327	1
E15ST 48 - ASTOR345	Q35M	598	675	1595	140	25142	74325	-79579	1
E15ST 48 - E13 ST	37376	258	305	321	232	25463	74325	-74434	10
E15ST 48 - FARRAGUT	48	492	726	1151	239	25252	74325	-74327	1
E179 ST - HG 1	15054	184	259	401	240	25290	74435	-74492	1
E179 ST - HG 4	15053	184	259	401	241	25289	74435	-74495	1
E179 ST - HG 6	15055	251	347	516	242	25288	74435	-74497	1
E179 ST - PK-CITY1	38X01	127	169	204	243	25327	74435	-74520	1
E179 ST - PK-CITY2	38X02	127	169	204	244	25328	74435	-74521	1
E179 ST - PK-CITY3	38X03	127	169	204	245	25330	74435	-74522	1
E179 ST - PK-CITY4	38X04	127	169	204	246	25329	74435	-74523	1
E179 ST - S CREEK	15032	184	259	401	248	25156	74435	-74533	1
E179 ST - S CREEK	15031	184	259	401	247	25157	74435	-74533	2
FARRAGUT - GOWANUSN	41	688	855	1215	260	25141	74327	-74336	1
FARRAGUT - GOWANUSS	42	688	855	1215	261	25140	74327	-74337	1
FARRAGUT - HAE TR1	32078	130	174	216	263	25637	74327	-74486	1
FARRAGUT - RAINEY	63	758	866	1113	267	25152	74327	-74345	1
FARRAGUT - RAINEY	62	796	898	1135	266	25253	74327	-74345	2
FARRAGUT - RAINEY	61	758	866	1113	265	25254	74327	-74345	3
FISHKILL - PLTVLLEY	F36	1976	2384	2895	268	25256	74331	-74344	1
FISHKILL - PLTVLLEY	F37	1976	2384	2895	269	25257	74331	-74344	2
FISHKILL - SYLVN115	A/990	145	176	179	376	25066	74026	75762	1
FISHKILL - WOOD A	F38/Y86	2401	3031	3406	270	25367	74331	-74355	1
FISHKILL - WOOD A	F39	2401	3031	3406	271	25368	74331	-74355	1
FOXHLLS1 - GRENWOOD	29231	169	252	394	276	25321	74466	-74484	1
FOXHLLS2 - GRENWOOD	29232	169	252	394	278	25322	74467	-74484	1
FR KILLS - FRKILLR2	TA1	327	435	540	283	25457	74332	-74469	1
FR KILLS - FRKILLSR	TB1	329	410	478	284	25458	74332	-74470	1
FR KILLS - GOTHLS N	22	1283	1618	1817	285	25137	74332	-74333	1
FR KILLS - GOTHLS S	21	971	1073	1362	286	25138	74332	-74335	1
FR-KILLS - FRKILLR2	21192	327	435	540	2804	25639	74469	-74468	1
FR-KILLS - FRKILLSR	21192	329	410	478	280	25640	74470	-74468	1
FR-KILLS - WILOWBK1	29211	195	286	463	277	25319	74468	-74570	1
FR-KILLS - WILOWBK1	29212	195	286	463	281	25319	74468	-74570	1
FR-KILLS - WILOWBK2	29212	195	286	463	279	25320	74468	-74571	1
FR-KILLS - WILOWBK2	29211	195	286	463	282	25320	74468	-74571	1
FRASR345 - EDIC	EF24-40	1380	1380	1380	2802	25112	75403	-78450	1
FRASR345 - FRASR115	BK#2	356	420	420	2851	25391	75403	75455	1
FRASR345 - GILB 345	35	1524	1524	1524	544	25060	75403	79581	1
FRASR345 - OAKDL345	32	1380	1380	1380	543	25235	75403	75405	1
FRMGTN-4 - PANNELLI	4	265	293	317	887	25080	77447	-79825	1
GALEVILE - KERHNKMK	P	40	47	49	427	69391	74098	-74106	1
GALEVILE - MODENA 6	MK	40	47	49	425	69391	74098	-74113	1
GARDV115 - GRDNVL1	T10-12	712	813	985	548	25085	75456	-76700	1
GARDV115 - LANGN115	903/904	179	197	213	524	68914	75456	-76117	1
GARDV230 - GARDN M6	#6	370	420	420	545	25405	75412	76153	1
GARDV230 - GARDN M6	#7	246	288	300	546	25435	75412	76153	1
GARDV230 - GRDNVL2	T8-12	773	773	773	550	25089	75412	-76663	1
GARDV230 - STOLE230	66	478	478	478	549	25180	75412	-75417	1
GERES LK - SOREL-9	9	176	181	199	890	25510	77450	-77490	1
GINNA115 - PANELLI	912	265	295	335	1074	25260	79824	-79825	1
GL NWD NO - SHORE RD	366	525	577	641	44	25154	75030	-75041	1
GLNWD SO - SHORE RD	365	577	635	705	46	25205	75031	-75041	1
GOETH T - GOETHALS	BKA2253	630	789	886	287	25642	74370	-74371	1
GOTHLS N - GOWANUSN	25	527	726	1076	290	25139	74333	-74336	1
GOTHLS R - GOETH T	BKA2253	630	789	886	287	25642	74334	74370	1
GOTHLS S - GOWANUSS	26	527	726	1076	291	25571	74335	-74337	1
GOUDY115 - S.OWE115	961	143	157	167	555	25725	75457	-75498	1
GOWANUSN - GOWNUS1T	T2	272	308	376	292	25476	74336	-74477	1
GOWANUSS - GOWNUS2T	T14	272	308	376	293	25475	74337	-74479	1
GOWNUS1R - GRENWOOD	42232	262	325	452	301	25214	74476	-74484	1
GOWNUS2R - GRENWOOD	42231	262	325	452	297	25215	74478	-74484	1
GRAND IS - PLAT T#3	PV-20/B	239	239	254	961	25027	70511	-79602	1
GRDNVL2 - GRDNVL1	2	298	334	396	677	25385	76663	76700	1

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LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
GRDNVL2 - GRDNVL1	4	169	210	250	679	25417	76663	76700	2
GRDNVL2 - GRDNVL1	3	168	210	250	678	25416	76663	76700	3
GRDNVL2 - SUNY-79	79	692	760	848	690	25165	76663	-76668	1
GRDNVL2 - SUNY-80	80	692	760	848	691	25196	76663	-76669	1
GRENWOOD - VERNON-E	31232	177	254	394	305	25298	74484	-74556	1
GRENWOOD - VERNON-E	31231	177	254	394	304	25299	74484	-74556	1
HAE TR1 - HUDAVE E	32077	130	174	216	264	25291	74486	-74502	1
HAE TR1 - HUDAVE E	32711	130	174	216	262	25293	74486	-74502	1
HAM-CKTP - PALOMATP	4	120	120	159	904	25501	77452	77478	1
HAMLT115 - ELBRIDGE	983	152	166	175	878	69053	75461	-77441	1
HAMLT115 - FARMGTN1	983	152	166	175	884	69138	75461	-77444	1
HAMLT115 - HAMLTN34	1	34	42	56	563	25394	75554	75461	1
HAR.CORN - W.NYACK	751	81	88	92	478	69314	79338	-79362	1
HARRIMAN - SLOSBURG	31/311	137	151	157	479	69318	79339	-79355	1
HILLBURN - RINGWOD6	89/993	137	151	157	483	69353	79340	-79350	1
HILLBURN - SLOSBURG	31/311	137	151	157	479	69318	79340	-79355	1
HILLBURN - TALLMAN	59/591	112	122	126	469	68642	79340	-79361	1
HILSD230 - HILSD M3	BK#3	271	332	336	576	25397	75413	75843	1
HILSD230 - WATRC230	69	615	657	657	581	25181	75413	-75418	1
HINMN115 - LOCKPORT	100	268	293	317	585	25087	75465	-76702	1
HOLBROOK - PT JEFF1	886	301	331	419	61	25540	75044	-75057	1
HOLBROOK - RONKONK	889	283	389	473	67	25682	75044	-75059	1
HOLBROOK - RONKONK	925	330	370	415	928	25682	75044	-75059	1
HOLBROOK - RULND RD	882	502	553	698	68	25538	75044	-75061	1
HOLBROOK - SHOREHAM	925	238	239	239	547	25116	75044	75062	1
HOMER CY - STOLE345	37	703	835	840	630	25036	479	75406	1
HOMER CY - WATRC345	30	927	927	927	635	25018	479	75407	1
HONK FLS - KERHNKMK	P	40	47	49	427	69391	74103	-74106	1
HUDAVE E - JAMAICA	702	129	228	370	317	25295	74502	-74505	1
HUDAVE E - JAMAICA	701	129	228	370	316	25294	74502	-74505	2
HUDSON1 - FARRGUT1	C3403	543	737	827	259	25038	4989	-74328	1
HUDSON2 - FARRGUT2	B3402	586	748	863	257	25020	5039	-74329	1
HUNT - ST.FORES	89/993	137	151	157	483	69353	79341	-79358	1
HUNT - WISNER	89/993	137	151	157	483	69353	79341	-79363	1
HUNTLEY1 - S129-39	38	168	181	199	703	69428	76701	-76723	1
HUNTLEY1 - ZRMN-130	129	199	199	199	705	69426	76701	-76748	1
HUNTLEY2 - PACKARD2	78	680	747	837	707	25164	76664	-76665	1
HUNTLEY2 - PACKARD2	77	680	747	837	706	25195	76664	-76665	1
HUNTLEY2 - SUNY-79	79	692	760	848	708	25127	76664	-76668	1
HUNTLEY2 - SUNY-80	80	692	760	848	709	25128	76664	-76669	1
HURLEY 3 - HURLEY 1	BK 1	486	560	560	431	25419	74030	-74000	1
HURLEY 3 - LEEDS 3	301	1868	1912	1912	435	25055	74000	-78701	1
HURLEY 3 - ROSETON	303	1712	1885	2102	434	25218	74000	-74002	1
HYATT115 - ELBRIDGE	15	157	171	182	587	25109	75466	-77441	1
INGMS-CD - INGHAM-E	2	197	234	239	898	25242	78478	-79136	1
JAMAICA - L SUCSPH	903	268	361	428	78	25090	74505	-75047	1
JAMAICA - V STRM P	901L/M	306	391	441	118	25048	74505	-75067	1
KENTS115 - SARANAC	PS-1/B	128	148	170	959	25078	75471	-79685	1
KINTI345 - NIAG 345	38	1591	1745	1793	623	25074	75404	-79584	1
KINTI345 - ROCH 345	39	1591	1745	1793	624	25073	75404	-79800	1
KNAPPS 6 - LAGRANGE	G	49	52	58	438	69534	74107	-74108	1
LADENTWN - RAMAPO	W72	1822	2010	2555	320	25233	74340	-74347	1
LADENTWN - W.HAV345	67	1976	2384	2895	321	25248	74340	-79300	1
LAGRANGE - PL.VAL 6	G	49	52	58	438	69534	74108	-74120	1
LAKE RD - HAM-CKTP	4	120	120	159	904	25501	77421	77452	1
LAKE RD - 9 MI PT	4	120	120	159	904	25501	77421	77502	1
LAKE RD. - ST.FORES	89/993	137	151	157	483	69353	79342	-79358	1
LAUREL L - GOUDY115	952	128	149	162	556	25012	387	-75457	1
LCST GRV - NEWBRGE	558&9	446	572	657	83	25158	75045	-75050	1
LEEDS 3 - GILB 345	GL-3	1762	1793	1912	1017	25219	78701	-79581	1
LEEDS 3 - N.SCOT77	93	1534	1692	1912	1029	25171	78701	-78702	1
LEEDS 3 - N.SCOT99	94	1534	1692	1912	1028	25203	78701	-78703	2
LINDEN - GOETHALS	A2253	613	768	768	288	25017	4996	-74371	1
LOCKPORT - NAKR-108	108	158	162	187	712	25266	76702	77115	1
LOCKPORT - OAKFLDTP	112	166	175	187	646	25300	76702	77117	1
LOCKPORT - SNBRN102	101	285	300	318	713	25267	76702	-76718	1
LOCKPORT - SOUR-111	111	166	175	187	717	25262	76702	77122	1
LOCKPORT - SWAN-104	104	211	217	242	776	25042	76702	-76721	1
LOCKPORT - TELRDTP1	107	199	199	199	637	25265	76702	77125	1
LOCKPORT - TELRDTP1	114	174	191	199	721	25264	76702	77126	1
LONGTAP - NIAG115E	180	194	199	233	681	25104	76703	-79600	1
LTHSE HL - BLACK RV	6	128	135	152	805	25506	77466	-78005	1
MACDN115 - QUAKER	930	68	85	112	594	25093	75892	-79826	1

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LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
MALONE - NICHOLVL	3	145	152	159	905	25585	78033	-78041	1
MALONE - WILL 115	910	168	191	199	906	25586	78033	-79606	1
MANY393 - ALPS345	393	1601	1757	1912	995	25034	72928	-78700	1
MARCY765- MARCY T1	MAR-AT	1793	1793	2390	908	25456	79577	-79583	1
MARCY765 - MARCY T1	MAR-AT1	1654	1654	1654	907	25455	79577	-79583	2
MARCY765 - MASS 765	MSU1	3975	3975	5300	911	25224	79577	-79578	1
MASS 765 - CHA-NY82	MSC7040	3975	3975	5300	825	25301	79578	84819	1
MASS 765 - MASS230A	MAS-AT1	1076	1254	1404	912	25665	79578	-79587	1
MASS 765 - MASS230B	MAS-AT2	1076	1254	1404	914	25666	79578	-79588	1
MASS230A - MOSES E	MMS1	1076	1195	1404	913	25274	79587	-79589	1
MASS230B - MOSES E	MMS2	1076	1195	1404	915	25275	79588	-79589	1
MEYER230 - MEYER M4	BK#4	271	332	336	595	25398	75414	75993	1
MEYER230 - STOLE230	67	512	564	606	598	25064	75414	-75417	1
MILAN - N.CAT. 1	T7	145	160	178	441	69719	74038	-74040	1
MILAN - PL.VAL 1	R10	168	199	233	338	69896	74038	-74043	1
MILLWOOD - MLWD TA	96922	248	333	359	323	25530	74341	-74508	1
MILLWOOD - MLWD TA	96921	234	305	321	322	25531	74341	-74508	2
MILLWOOD - WOOD B	W80	1976	2384	2895	326	25148	74341	-74356	1
MLPN-129 - PACK(S)W	133	199	199	199	465	69854	76704	-76711	1
MLPN-130 - PACK(S)W	130	211	217	239	764	69855	76705	-76711	1
MLPN-130 - SUMIT PK	130	211	217	239	764	69855	76705	-76719	1
MORAI115 - BENET115	966	146	160	178	503	68439	75481	-75992	1
MORTIMER - PTSFD-24	24	157	171	182	728	25096	77111	-77119	1
MORTIMER - STA 89	25	139	145	162	729	25095	77111	-79839	1
MORTIMER - SWDN-111	111	129	149	153	723	25347	77111	-77123	1
MORTIMER - S33 901	901	159	159	159	731	25097	77111	-79831	1
MORTIMER - S33 901	902	90	90	90	1117	25097	77111	-79831	1
MORTIMER - S80 3TR	904	288	304	334	732	25081	77111	-79821	1
MORTIMER - S82-1115	7X8272	337	426	480	730	25098	77111	-79811	1
MOS 115 - GR-TAP1	MAL-6	279	282	327	792	25582	79599	-79612	1
MOS 115 - GR-TAP2	MAL-5	291	319	350	794	25583	79599	-79613	1
MOSES W - MOS 115	SL-AT1	526	589	722	922	25411	79590	-79599	1
MOSES W - MOS 115	SL-AT2	526	589	722	923	25451	79590	-79599	2
MOSES W - MOS 115	SL-AT3	220	276	287	920	25452	79590	-79599	3
MOSES W - MOS 115	SL-AT4	598	598	797	921	25453	79590	-79599	4
MOSES W - WILLIS E	MW-2	447	478	577	927	25188	79590	-79595	1
MOSES W - WILLIS W	MW-1	447	478	577	926	25271	79590	-79596	1
MOUNTAIN - NIAG115E	121	224	239	282	2902	25070	76778	79600	1
MOUNTAIN - NIAG115E	122	224	239	282	2903	25072	76778	79600	2
MTNS-120 - NIAG115E	120	224	239	239	733	25135	76706	-79600	1
N.SCOT1 - AIR INDE	8	340	373	414	2817	25496	78766	-79751	1
N.SCOT1 - RTRDM1	13	255	282	318	1041	25494	78766	-78782	1
N.SCOT77 - N.SCOT1	BK#1	529	560	619	1039	25445	78702	78766	1
N.SCOT99 - GILB 345	GNS-1	1458	1601	1780	1018	25052	78703	-79581	1
N.SCOT99 - MARCY T1	18	1792	1792	1792	910	25276	78703	79583	1
N.SCOT99 - N.SCOT1	BK#2	533	547	597	2816	25460	78703	78766	1
N.WAV115 - CHEMU115	962	143	157	167	577	25726	75486	-75812	1
N.WAV115 - LOUNS115	962	143	157	167	607	25727	75486	75668	1
NEWBRGE - RULND RD	561	311	341	371	81	25305	75050	-75061	2
NEWBRGE - RULND RD	562	311	341	371	80	25306	75050	-75061	2
NI.B-181 - PACK(N)E	181/922	146	160	178	737	69816	76708	-76710	1
NIAG 345 - BECK A	PA302	1180	1469	1860	759	25041	79584	81509	1
NIAG 345 - BECK B	PA301	1180	1469	1860	758	25040	79584	81508	1
NIAG 345 - NIAGAR2E	N-AT5	441	552	575	745	25408	79591	-79584	1
NIAG 345 - NIAGAR2E	N-AT3	441	552	575	744	25450	79591	-79584	2
NIAG 345 - NIAGAR2W	N-AT4	881	1027	1150	752	25449	79592	-79584	1
NIAG 345 - ROCH 345	NR2	1591	1745	1904	757	25084	79584	-79800	1
NIAGAR2W - NIAG115E	N-AT1	220	276	288	739	25409	79600	-79592	1
NIAGAR2W - NIAG115W	N-AT2	286	329	400	747	25410	79601	-79592	1
NIAGAR2W - PA27 REG	PA27	480	540	685	756	25025	79592	81516	1
NORHR138 - NRTHPT P	1385A&B	242	316	428	90	25035	73166	-75053	1
NRTHPRT1 - NRTHPRT2	BUS/PS2	463	570	570	91	25599	75051	75052	1
NRTHPRT1 - PILGRIM	672	229	317	421	94	25307	75051	75056	1
NRTHPRT1 - PILGRIM	677	459	634	677	92	25308	75051	75056	2
NRTHPRT1 - PILGRIM	679	459	634	677	93	25309	75051	-75056	3
OAKDL230 - OAKDL115	BK#1	318	435	440	609	25400	75415	75488	1
OAKDL230 - WATRC230	71	318	435	440	612	25179	75415	-75418	1
OAKDL345 - LAFAYTTE	4-36	1380	1380	1380	614	25049	75405	-77403	1
OAKDL345 - OAK2M115	BK#3	508	600	600	571	25399	75405	75489	1
OAKDL345 - OAK3M115	BK#2	508	600	600	610	25401	75405	75490	1
OAKDL345 - WATRC345	31	1076	1076	1076	613	25178	75405	-75407	1
OAKWOOD - SYOSSET	675	301	417	650	96	25547	75055	-75063	1
OSW 3&4 - S OSWEGO	5	209	239	239	952	25508	77475	77485	1

NYPP WINTER 1999 OPERATING STUDY
WINTER ONLINE RATINGS

LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
OSW 3&4 - S OSWEGO	8	478	478	478	953	25509	77475	77485	2
OSWEGO - OSW 3&4	BK 7	592	657	774	966	25372	77404	-77475	1
OSWEGO - VOLNEY	11	1278	1410	1792	948	25199	77404	-77406	1
OSWEGO - VOLNEY	12	1278	1410	1792	949	25201	77404	-77406	1
OW CRN W - UNVL 9TP	2	141	144	165	450	25067	78770	-78797	1
PACK(N)E - NIAG115E	191	319	357	413	742	25075	76710	-79600	1
PACK(N)E - NIAG115E	192	319	357	398	741	25099	76710	-79600	2
PACK(S)W - NIAG115W	194	319	357	413	750	25100	76711	-79601	1
PACK(S)W - NIAG115W	193	319	357	413	749	25101	76711	-79601	2
PACK(S)W - NIAG115W	195	285	300	371	751	25102	76711	-79601	3
PACKARD2 - BP76 REG	76	559	586	700	763	25024	76665	81515	1
PACKARD2 - NIAGAR2W	62	717	717	942	755	25186	76665	-79592	1
PACKARD2 - NIAGAR2W	61	717	717	942	754	25220	76665	-79592	1
PACKARD2 - PACK(N)E	3	168	210	250	760	25414	76665	-76710	1
PACKARD2 - PACK(S)W	2	127	157	200	761	25383	76665	-76711	1
PACKARD2 - PACK(S)W	4	168	210	250	762	25415	76665	-76711	2
PALOMA - S OSWEGO	6	139	144	161	903	25513	77477	-77485	1
PALOMA - S OSWEGO	6	141	144	165	954	25513	77477	-77485	1
PALOMATP - S OSWEGO	4	120	120	159	904	25501	77478	-77485	1
PANNELLI - QUAKER	914	265	295	335	1081	25261	79825	-79826	1
PANNELL3 - PANNELLI	122 2TR	293	344	354	771	25396	79801	-79825	1
PARK TR1 - PARK1REG	R11	258	339	409	330	25649	74512	-74516	1
PARK TR2 - PARK2REG	R12	258	339	409	333	25650	74513	-74517	1
PAWLN115 - SYLVN115	990/994	179	179	179	188	68887	75492	-75762	1
PILGRIM - RULND RD	661	587	587	587	105	25310	75056	-75061	1
PILGRIM - RULND RD	662	587	587	587	104	25311	75056	-75061	2
PL VILLE - PLTVILLE	1	64	70	70	345	25477	74342	-74783	1
PL VILLW - PLTVILLE	2	64	70	70	344	25478	74343	-74783	1
PL VILLW - WOOD A	Y87	2401	3031	3406	352	25132	74343	-74355	1
PL.VAL 1 - ADM	12	145	151	159	343	69893	74043	78730	1
PL.VAL 1 - BL STR E	987/13	120	120	120	341	69895	74043	78739	1
PL.VAL 1 - BLUES-8	8	141	144	159	342	69894	74043	78742	1
PL.VAL 1 - PLTVLLEY	BK S1	478	478	478	334	25382	74344	-74043	1
PLAT T#1 - WILLIS E	WP-1	217	242	281	967	25272	79593	-79595	1
PLAT T#4 - WILLIS W	WP-2	217	242	281	956	25273	79594	-79596	1
PLAT 115 - T MIL RD	PS-1/B	128	148	170	959	25078	79672	-79694	1
PLTVLLEY - LEEDS 3	91	1624	1783	1912	347	25054	74344	-78701	1
PLTVLLEY - LEEDS 3	92	1624	1783	1912	348	25056	74344	-78701	2
PLTVLLEY - WOOD B	F30	1976	2384	2895	346	25237	74344	-74356	1
PORTER 1 - ILION	5	141	144	165	896	25232	78485	-79655	1
PORTER 1 - ILION	2	141	144	159	991	25232	78485	-79655	1
PORTER 1 - VALLEY	4	141	144	165	973	25231	78485	-78496	1
PORTER 2 - ADRON B1	11	341	376	478	783	25051	78460	-79585	1
PORTER 2 - ADRON B2	12	341	376	478	785	25082	78460	-79586	1
PORTER 2 - PORTER 1	2	320	365	398	972	25389	78460	-78485	1
PORTER 2 - PORTER 1	1	320	365	398	971	25423	78460	-78485	1
PORTER 2 - ROTRDM.2	30	511	564	634	974	25173	78460	-78980	1
PORTER 2 - ROTRDM.2	31	511	564	634	975	25194	78460	-78980	1
PTSFD-24 - PANNELLI	24	157	171	182	1079	69863	77119	-79825	1
PTSFD-25 - PANNELLI	25	139	145	162	1080	69862	77120	-79825	1
QUENBRDG - VERNON-E	31282	355	508	602	354	25159	74525	-74556	2
QUENBRDG - VERNON-W	31281	368	570	602	353	25160	74525	-74557	1
RAINEY - 8E DUM	36311	259	329	379	358	25296	74345	74611	8
RAINEY - 8W DUM	36312	260	332	390	359	25297	74345	-74612	8
RAM PAR - RAMAPO	BK4500	588	840	1113	2806	25370	74346	-74347	1
RAM PAR - RAMAPO	BK3500	588	840	1113	2805	25371	74346	-74347	2
RAMAPO - SMAHWAH1	69	1601	2010	2271	364	25021	74347	79302	1
RAMAPO - SMAHWAH2	70	1822	2010	2555	365	25259	74347	79303	1
RAMAPO 5 - RAM PAR	1500	1160	1419	1925	360	25656	74300	74346	1
REYNLD3 - REY. RD.	BK#2	585	676	796	1050	25403	78704	-78778	1
ROBIN230 - NIAGAR2E	64	639	714	717	618	25088	75416	-79591	1
ROBIN230 - ROBIN M1	BK#1	344	412	420	616	25395	75416	-76282	1
ROBIN230 - STOLE230	65	673	717	717	617	25065	75416	-75417	1
ROCH 345 - PANNELL3	1	1591	1745	1904	767	25192	79800	-79801	1
ROCH 345 - PANNELL3	2	1591	1745	1904	766	25172	79800	-79801	2
ROCH 345 - S80 1TR	BK #1TR	265	295	334	772	25412	79800	-79819	1
ROCH 345 - S80 2TR	BK #2TR	291	342	360	773	25432	79820	79800	2
ROCH 345 - S80 3TR	BK #3TR	286	320	360	774	25446	79800	-79821	3
ROCK TAV - COOPC34	CRT-34	1786	1793	1793	2800	25110	74001	75400	1
ROCK TAV - COOPC34	CRT-42	1793	1793	1793	2801	25111	74001	75400	2
ROCK TAV - RAMAPO	77	1822	2010	2390	361	25183	74001	74347	1
ROCK TAV - ROCK TV1	BK TR	485	530	530	457	25406	74046	-74001	1
ROCK TAV - ROSETON	311	1712	1885	1912	458	25069	74001	-74002	1

NYPP WINTER 1999 OPERATING STUDY
WINTER ONLINE RATINGS

LINE NAME	LINE_ID	NORMAL	LTE	STE	MLF_NO	PTID	FBUS	TBUS	CKT
ROSETON - FISHKILL	305	2527	2773	3137	272	25108	74002	74331	1
RTRDM1 - ROTRDM.2	BK#6	406	447	585	1056	25407	78980	78782	1
RTRDM1 - ROTRDM.2	BK#7	346	396	448	1057	25392	78980	78782	2
RTRDM1 - ROTRDM.2	BK#8	377	427	474	1058	25413	78980	78782	3
S.PER115 - STA 162	7X16272	149	172	180	625	25062	75995	79810	1
SANBORNT - NIAG115E	102	285	300	318	743	25103	76714	-79600	1
SARANAC - T MIL RD	PS-1/B	128	148	170	959	25078	79685	-79694	1
SCRIBA - JA FITZP	FS-10	1434	1434	1912	900	25076	77405	-79580	1
SCRIBA - VOLNEY	20	1474	1626	1881	978	25204	77405	-77406	1
SCRIBA - VOLNEY	21	1912	1912	1912	979	25314	77405	-77406	1
SCRIBA - 9M PT 2G	23	2041	2242	2390	981	70513	77405	-77950	1
SCRIBA - 9MI PT1	9	1166	1281	1424	980	25359	77405	-77407	1
SHORE RD - L SUCS	368	258	377	623	76	25150	75041	-75046	1
SHORE RD - L SUCS	367	258	377	623	75	25145	75041	-75046	2
SHORE RD - SHORE RD	BK#2	522	641	731	114	25440	75000	75041	1
SHORE RD - SHORE RD	BK#1	522	641	731	113	25439	75000	75041	2
SLEIG115 - CLYDE199	971/3	133	149	159	511	25356	75893	-79805	1
SLEIG115 - QUAKER	980	187	207	222	621	25079	75893	-79826	1
SMAHWAH1 - S.MAHWAH	258	496	646	656	496	25393	79302	-79320	1
SOUR-114 - MORTIMER	114	129	149	153	725	25349	77100	-77111	1
SPRBROOK - TREMONT	X28	524	710	973	373	25175	74348	-74351	1
SPRBROOK - W 49 ST	M52	775	968	1312	375	25223	74348	-74354	1
SPRBROOK - W 49 ST	M51	775	968	1312	374	25053	74348	-74354	2
STATE115 - CLTNCORN	971/3	133	149	159	510	25063	75505	-77433	1
STATE115 - ELBRIDGE	972/5	133	149	162	627	25107	75505	-77441	1
STILV115 - HANCO115	954/955	119	120	120	565	69271	75506	-76310	1
STOLE345 - STOLE115	#4	356	420	420	629	25462	75507	-75406	1
STOLE345 - STOLE115	#3	347	415	420	628	25461	75507	75406	2
SUGARLF - SUGARLF6	SL/6108	214	235	239	498	25420	79328	-79359	1
SUGARLF6 - WISNER	89/993	137	151	157	483	69353	79359	-79363	1
TREMONT - PARK TR1	R11	255	339	409	350	25473	74351	-74512	1
TREMONT - PARK TR2	R12	258	337	409	351	25474	74351	-74513	1
VOLNEY - MARCY T1	19	1434	1793	1912	909	25345	77406	-79583	1
W.HAV345 - W.HAVERS	BK#194	501	623	623	382	25447	79300	79325	1
W.WDB115 - W.WDBR69	T152	50	50	50	467	25404	76210	-75512	1
WALDA113 - AM.S-182	923	44	44	51	633	25429	76198	-76682	1
WALDWICK - SMAHWAH1	J3410	645	914	1189	2304	25032	5028	79302	1
WALDWICK - SMAHWAH2	K3411	670	956	1249	2305	25039	5028	79303	1
WARREN - FALCONER	171	96	136	136	673	25015	281	76527	1
WATRC345 - WATRC230	BK#1	528	600	600	634	25402	75407	75418	1
WILLIS E - WILL 115	WIL-AT1	172	201	225	984	25388	79606	79595	1
WILLIS W - WILL 115	WIL-AT2	172	201	225	983	25390	79606	79596	1
WOODA345 - WOODS115	BK#1	378	420	420	384	25437	75408	75515	1
WOODB345 - WOODS115	BK#2	375	420	420	383	25438	75409	75515	1
WOODS115 - AMWLK115	996	261	287	311	327	25574	75515	-75759	1
WYANT115 - REY. RD.	13	227	249	268	1052	69928	75517	-78778	1

APPENDIX E

GENERATION CHANGES ASSUMED

FOR THERMAL ANALYSIS

NYPP OPERATING INTERFACES & OASIS TRANSMISSION PATHS

CENTRAL EAST

Name	Line ID	Voltage(kV)
Edic-New Scotland*	14	345
Marcy-New Scotland*	UNS-18	345
Porter-Rotterdam*	30	230
Porter-Rotterdam*	31	230
*Plattsburgh - Grand Isle	PV-20	115
East Springfield - Inghams*	942	115
Inghams Bus Tie	PAR	115

TOTAL EAST

Central-Capital/MidHudson

Name	Line ID	Voltage(kV)
Coopers-Rock Tavern*	CCRT-34	345
Coopers-Rock Tavern*	CCRT-42	345
Edic-New Scotland*	14	345
*Fraser-Gilboa	35	345
Marcy-New Scotland*	UNS-18	345
Porter-Rotterdam*	30	230
Porter-Rotterdam*	31	230
East Springfield - Inghams*	941	115
Inghams Bus Tie	PAR	115
West Woodbourne*115/69	T152	BK

PJM East-Capital/MidHudson

Branchburg-Ramapo*	5018	500
*Waldwick- S.Mahwah	J3410	345
* Waldwick-S.Mahwah	K3411	345

PJM East-New York City

Hudson-Farragut*	C3403	345
Hudson-Farragut*	B3402	345
Linden-Goethals*	A2253	230

Adirondack-NEPEX VT N

*Plattsburgh-Grand Isle	PV-20	115

MOSES SOUTH

Adirondack-Central

Name	Line ID	Voltage (kV)
*Massena-Marcy	MSU1	765
*Moses-Adirondack	MA-1	230
*Moses-Adirondack	MA-2	230
*Dennison-Colton	4	115
*Dennison-Colton	5	115
*Alcoa-N. Ogdensburg	13	115
Malone-Colton*	3	115

***** indicates the metered end of bus

DYSINGER EAST		
Frontier-Genessee		
Name	**Line ID**	**Voltage (kV)**
*AES Somerset-Rochester (Sta 80)	SR-1/39	345
Niagara-Rochester*	NR2	345
*Stolle-Meyer	67	230
Palmiter - Bennett*	932	115
*Lockport-Batavia	107	115
*Lockport-N. Akron	108	115
*Lockport-Oakfield	112	115
*Lockport-Sweden 1	111	115
*Lockport-Sweden 3	113	115
*Lockport-Telegraph	114	115

WEST CENTRAL		
Genessee-Central		
Name	**Line ID**	**Voltage(kV)**
Pannell Road-Clay	PC-1	345
Pannell Road-Clay*	PC-2	345
*Stolle-Meyer	67	230
Palmiter-Bennett*	932	115
Macedon-Quaker*	930	115
*Mortimer-Elbridge	1	115
*Mortimer-Elbridge	2	115
*Pannell-Farmington	4	115
*Quaker Road-Sleight Road	980	115
St. 162 - S. Perry	906	115
*Clyde 199-Sleight Rd		115
Clyde 199-Clinton Corn		115
*Farmington (RG&E) NMPC		115
(Farmngtn 34.5 - Farmgtn 115)		34.5/115
(Farmngtn 34.5 - Farmgtn-4 115)		34.5/115

UPNY-CONED		
Capital/MidHudson-Westchester		
Name	**Line ID**	**Voltage(kV)**
Ladentown-Buchanan South*	Y88	345
*Pleasant Valley-Wood St.	F30	345
*Pleasant Valley-E. Fishkill	F36	345
*Pleasant Valley-E. Fishkill	F37	345
*Pleasant Valley-Millwood	F31	345
*Ramapo-Buchanan North	Y94	345
Roseton-E. Fishkill*	305	345
*Fishkill Plains - Sylvan Lake	A/990	115
East Fishkill 115/345	Bank	115/345

***** indicates the metered end of bus

SPRAINBROOK-DUNWOODIE SOUTH		
Name	**Line ID**	**Voltage(kV)**
*Dunwoodie-Rainey	71	345
*Dunwoodie-Rainey	72	345
Sprainbrook-Tremont*	28	345
*Sprainbrook-West 49th Street	M51	345
*Sprainbrook-West 49th Street	M52	345
*Lake Success-Jamaica	903	138
*Valley Stream-Jamaica	901L/M	138
*Dunwoodie-Sherman Creek	99031	138
Dunwoodie-Sherman Creek*	99032	138
*Dunwoodie-East 179th Street	99153	138

NEW ENGLAND - NYPP		
Adirondack-NEPEX VT N		
Name	**Line ID**	**Voltage (kV)**
*Plattsburgh-Grand Isle	PV-20	115
Capital/MidHudson-NEPEX VT/NE/NU		
*Alps-Berkshire	393	345
*Pleasant Valley-Long Mnt.	398	345
Rotterdam-Bear Swamp*	E205W	230
North Troy-Bennington*	6	115
*Whitehall-Rutland (Velco)	7/K37	115
Long Island-NEPEX NUS.		
*Northport-Norwalk	1385	138

PJM-NYPP		
PJM East-New York City		
Name	**Line ID**	**Voltage (kV)**
Hudson-Farragut*	C3403	345
Hudson-Farragut*	B3402	345
Linden-Goethals*	A2253	230

***** indicates the metered end of bus

PJM West-Central		
*Homer City-Watercure	30	345
E. Towanda-Hillside*	70	230
Tiffany-Goudey*	952	115
*E. Sayre-N. Waverly	956	115
PJM West-Frontier		
*Homer City-Stolle Road	37	345
Erie South-South Ripley*	69	230
*Warren-Falconer	171	115
PJM East-Capital/MidHudson		
Branchburg-Ramapo*	5018	500
*Waldwick-S.Mahwah	J3410	345
*Waldwick-S.Mahwah	K3411	345

IMO (Ontario)-NYPP		
Ontario East-Adirondack		
Name	**Line ID**	**Voltage (kV)**
St. Lawrence-Moses*	L33P	240
St.Lawrence-Moses*	L34P	230
Ontario South-Frontier		
Beck-Niagara*	PA301	345
Beck-Niagara*	PA302	345
Beck-Niagara*	PA27	230
*Beck-Packard	BP76	230

Westchester - Long Island		
Name	**Line ID**	**Voltage (kV)**
*Dunwoodie-Shore Road	Y50	345
*Sprainbrook-East Garden City	Y49	345
New York City - Long Island		
Name	**Line ID**	**Voltage (kV)**
Jamaica-Valley Stream*	901L/M	138
Jamaica-Lake Success*	903	138

***** indicates the metered end of bus

GENERATION PARTICIPATION FOR INTERFACES

DYSINGER EAST, WEST CENTRAL

<---------- STUDY SYSTEM ---------->				<---------- OPPOSING SYSTEM ---------->			
		<---- GENERATOR MW ---->				<---- GENERATOR MW ---->	
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
80900	LAKEVWG518.0	233.2	1233.2	1000.0	74632	E RIVER 69.0	100.0	-180.0	-280.0
81765	NANTICG622.0	485.0	1485.0	1000.0	74702	RAV 3 22.0	851.5	291.5	-560.0
					74705	AST 4 20.0	309.0	109.0	-200.0
					74706	AST 5 20.0	309.0	69.0	-240.0
					74906	NRTPTG1 22.0	351.7	211.7	-140.0
					79390	BOWLINE 20.0	525.8	325.8	-200.0
					79546	POLETTI 26.0	567.2	187.2	-380.0

TOTAL EAST, CENTRAL EAST

<---------- STUDY SYSTEM ---------->				<---------- OPPOSING SYSTEM ---------->			
		<---- GENERATOR MW ---->				<---- GENERATOR MW ---->	
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
76640	DUNKGEN313.8	190.0	290.0	100.0	74632	E RIVER 69.0	100.0	-180.0	-280.0
77051	HNTLY68G13.8	185.0	285.0	100.0	74702	RAV 3 22.0	851.5	291.5	-560.0
77951	9M PT 1G23.0	628.8	1628.8	1000.0	74705	AST 4 20.0	309.0	109.0	-200.0
79515	MOS19-2013.8	114.0	314.0	200.0	74706	AST 5 20.0	309.0	69.0	-240.0
80900	LAKEVWG518.0	233.2	533.2	300.0	74906	NRTPTG1 22.0	351.7	211.7	-140.0
81765	NANTICG622.0	485.0	785.0	300.0	79390	BOWLINE 20.0	525.8	325.8	-200.0
					79546	POLETTI 26.0	567.2	187.2	-380.0

GENERATION PARTICIPATION FOR INTERFACES

UPNY - CONED, SPRAINBROOK/DUNWOODIE SOUTH

<---------- STUDY SYSTEM ---------->				<---------- OPPOSING SYSTEM ---------->			
	<---- GENERATOR MW ---->				<---- GENERATOR MW ---->		
BUS BUS NAME	BASE	SHIFT	CHANGE	BUS BUS NAME	BASE	SHIFT	CHANGE
76640 DUNKGEN313.8	190.0	240.0	50.0	74632 E RIVER 69.0	100.0	30.0	-70.0
77051 HNTLY68G13.8	185.0	235.0	50.0	74703 AK 2 20.0	350.0	150.0	-200.0
77951 9M PT 1G23.0	628.8	1128.8	500.0	74705 AST 4 20.0	309.0	109.0	-200.0
79515 MOS19-2013.8	114.0	214.0	100.0	74706 AST 5 20.0	309.0	109.0	-200.0
80900 LAKEVWG518.0	233.2	383.2	150.0	74707 RAV 1 20.0	316.0	116.0	-200.0
81765 NANTICG622.0	485.0	635.0	150.0	74906 NRTPTG1 22.0	351.7	221.7	-130.0

MOSES - SOUTH

<---------- STUDY SYSTEM ---------->				<---------- OPPOSING SYSTEM ---------->			
	<---- GENERATOR MW ---->				<---- GENERATOR MW ---->		
BUS BUS NAME	BASE	SHIFT	CHANGE	BUS BUS NAME	BASE	SHIFT	CHANGE
79513 MOS17-1813.8	114.0	314.0	200.0	74702 RAV 3 22.0	851.5	811.5	-40.0
79516 MOS21-2213.8	114.0	314.0	200.0	76640 DUNKGEN313.8	190.0	150.0	-40.0
				77051 HNTLY68G13.8	185.0	145.0	-40.0
				77951 9M PT 1G23.0	628.8	428.8	-200.0
				79546 POLETTI 26.0	567.2	487.2	-80.0

CONED - LONG ISLAND POWER AUTHORITY

<---------- STUDY SYSTEM ---------->				<---------- OPPOSING SYSTEM ---------->			
	<---- GENERATOR MW ---->				<---- GENERATOR MW ---->		
BUS BUS NAME	BASE	SHIFT	CHANGE	BUS BUS NAME	BASE	SHIFT	CHANGE
74190 ROSE GN124.0	539.5	624.5	85.0	74906 NRTPTG1 22.0	351.7	261.7	-90.0
74632 E RIVER 69.0	100.0	125.0	25.0	74908 NRTPTG3 22.0	362.0	272.0	-90.0
74702 RAV 3 22.0	851.5	976.5	125.0	74909 NRTPTG4 22.0	327.8	237.8	-90.0
74705 AST 4 20.0	309.0	334.0	25.0	74913 PTJEFG4 20.0	171.0	-9.0	-180.0
74706 AST 5 20.0	309.0	351.5	42.5	74942 NYPA108 13.8	108.0	58.0	-50.0
74707 RAV 1 20.0	316.0	396.0	80.0				
79390 BOWLINE 20.0	525.8	568.3	42.5				
79546 POLETTI 26.0	567.2	642.2	75.0				

GENERATION PARTICIPATION FOR INTERFACES

NEW YORK - NEW ENGLAND

<---------- STUDY SYSTEM ---------->					<---------- OPPOSING SYSTEM ---------->				
		<---- GENERATOR MW ---->					<---- GENERATOR MW ---->		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
74190	ROSE GN124.0	539.5	839.5	300.0	71063	MYST G7 22.0	565.0	315.0	-250.0
74193	DANSK G416.1	226.0	526.0	300.0	71252	CANAL G218.0	576.0	276.0	-300.0
78955	ALBY STM13.2	370.7	470.7	100.0	72868	NWNGT G124.0	422.0	172.0	-250.0
79390	BOWLINE 20.0	525.8	675.8	150.0	73558	MONTV#5 13.8	81.0	-119.0	-200.0
79546	POLETTI 26.0	567.2	717.2	150.0					

NEW ENGLAND - NEW YORK

<---------- STUDY SYSTEM ---------->					<---------- OPPOSING SYSTEM ---------->				
		<---- GENERATOR MW ---->					<---- GENERATOR MW ---->		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
71063	MYST G7 22.0	565.0	815.0	250.0	74190	ROSE GN124.0	539.5	239.5	-300.0
71252	CANAL G218.0	576.0	876.0	300.0	74193	DANSK G416.1	226.0	176.0	-50.0
72868	NWNGT G124.0	422.0	672.0	250.0	78955	ALBY STM13.2	370.7	270.7	-100.0
73558	MONTV#5 13.8	81.0	281.0	200.0	79390	BOWLINE 20.0	525.8	375.8	-150.0
					79394	LOVETT 520.0	149.0	-1.0	-150.0
					79527	GILBOA#117.0	250.0	0.0	-250.0

GENERATION PARTICIPATION FOR INTERFACES

PJM - NYPP

<---------- STUDY SYSTEM ---------->				<---------- OPPOSING SYSTEM ---------->			
		<---- GENERATOR MW ---->				<---- GENERATOR MW ---->	
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
34	PCHBTM 222.0	1104.8	1105.1	0.2	74193	DANSK G416.1	90.0	85.5	-4.5
424	SHAWVL 118.0	133.0	133.2	0.1	74632	E RIVER 69.0	0.0	-3.3	-3.3
1735	PORT 5CT13.8	176.0	181.9	5.9	75523	KINTIG2424.0	676.0	656.0	-20.0
2901	GG A1&2 13.8	48.0	48.8	0.8	76112	MILKN 1 13.8	0.0	-4.7	-4.7
2902	GG A3&4 13.8	48.0	49.6	1.6	76640	DUNKGEN313.8	113.1	110.5	-2.6
2903	GG B5&6 13.8	48.0	48.8	0.8	77950	9M PT 2G25.0	1090.0	1070.3	-19.7
2904	GG B7&8 13.8	48.0	49.6	1.6	78955	ALBY STM13.2	278.8	275.8	-3.1
2918	GILCT1&213.8	54.0	55.8	1.8	79546	POLETTI 26.0	449.3	437.2	-12.1
2919	GILCT3&413.8	54.0	55.8	1.8	79547	JAFITZ1G24.0	820.0	790.0	-30.0
2922	RRCT3&4 13.8	130.0	134.3	4.3					
2937	O CRK C113.8	45.0	46.5	1.5					
2938	O CRK C213.8	45.0	46.5	1.5					
3150	MTN CK 324.0	807.0	825.5	18.5					
4099	DELWARE713.8	93.4	96.5	3.1					
4100	DELWARE813.8	124.0	127.4	3.4					
4113	EDDYSTN324.0	38.0	39.3	1.3					
4961	BERGEN 138	19.0	19.6	0.6					
5066	KRNY9&1013.0	139.0	143.6	4.6					
5067	KEARNY1113.0	120.0	124.0	4.0					
5075	LINDN1-424.0	20.0	20.7	0.7					
5076	LINDEN 224.0	15.0	15.5	0.5					
5078	LINDEN I26.0	73.0	75.4	2.4					
5120	SEWAREN113.0	107.0	108.3	1.3					
5121	SEWAREN213.0	120.0	120.8	0.8					
5122	SEWAREN313.0	109.0	109.9	0.9					
5123	SEWAREN413.0	127.0	127.3	0.3					
5906	GOULD G313.8	85.2	87.1	1.9					
5907	N.C G1-413.8	68.0	70.3	2.3					
5908	N.C G5-813.8	68.0	70.3	2.3					
5914	RVRSDEG413.8	56.9	58.0	1.1					
5917	WAGNERG116.5	135.3	136.9	1.6					
6843	PENWD 4G13.8	38.8	38.9	0.1					
6844	PENWD 3G13.8	38.8	38.9	0.1					
6845	PENWD 2G13.8	38.8	38.9	0.1					
6846	PENWD 1G13.8	38.8	38.9	0.1					
7106	CHALK U324.0	612.0	612.1	0.1					
7107	CHALK U424.0	612.0	613.0	1.0					
7110	CHALKCT313.8	91.0	94.0	3.0					

GENERATION PARTICIPATION FOR INTERFACES

PJM - NYPP

<---------- STUDY SYSTEM ---------->					<---------- OPPOSING SYSTEM ---------->				
		<---- GENERATOR MW ---->					<---- GENERATOR MW ---->		
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
34	PCHBTM 222.0	1104.8	1105.1	0.2	74193	DANSK G416.1	90.0	85.5	-4.5
424	SHAWVL 118.0	133.0	133.2	0.1	74632	E RIVER 69.0	0.0	-3.3	-3.3
1735	PORT 5CT13.8	176.0	181.9	5.9	75523	KINTIG2424.0	676.0	656.0	-20.0
2901	GG A1&2 13.8	48.0	48.8	0.8	76112	MILKN 1 13.8	0.0	-4.7	-4.7
2902	GG A3&4 13.8	48.0	49.6	1.6	76640	DUNKGEN313.8	113.1	110.5	-2.6
2903	GG B5&6 13.8	48.0	48.8	0.8	77950	9M PT 2G25.0	1090.0	1070.3	-19.7
2904	GG B7&8 13.8	48.0	49.6	1.6	78955	ALBY STM13.2	278.8	275.8	-3.1
2918	GILCT1&213.8	54.0	55.8	1.8	79546	POLETTI 26.0	449.3	437.2	-12.1
2919	GILCT3&413.8	54.0	55.8	1.8	79547	JAFITZ1G24.0	820.0	790.0	-30.0
2922	RRCT3&4 13.8	130.0	134.3	4.3					
2937	O CRK C113.8	45.0	46.5	1.5					
2938	O CRK C213.8	45.0	46.5	1.5					
3150	MTN CK 324.0	807.0	825.5	18.5					
4099	DELWARE713.8	93.4	96.5	3.1					
4100	DELWARE813.8	124.0	127.4	3.4					
4113	EDDYSTN324.0	38.0	39.3	1.3					
4961	BERGEN 138	19.0	19.6	0.6					
5066	KRNY9&1013.0	139.0	143.6	4.6					
5067	KEARNY1113.0	120.0	124.0	4.0					
5075	LINDN1-424.0	20.0	20.7	0.7					
5076	LINDEN 224.0	15.0	15.5	0.5					
5078	LINDEN I26.0	73.0	75.4	2.4					
5120	SEWAREN113.0	107.0	108.3	1.3					
5121	SEWAREN213.0	120.0	120.8	0.8					
5122	SEWAREN313.0	109.0	109.9	0.9					
5123	SEWAREN413.0	127.0	127.3	0.3					
5906	GOULD G313.8	85.2	87.1	1.9					
5907	N.C G1-413.8	68.0	70.3	2.3					
5908	N.C G5-813.8	68.0	70.3	2.3					
5914	RVRSDEG413.8	56.9	58.0	1.1					
5917	WAGNERG116.5	135.3	136.9	1.6					
6843	PENWD 4G13.8	38.8	38.9	0.1					
6844	PENWD 3G13.8	38.8	38.9	0.1					
6845	PENWD 2G13.8	38.8	38.9	0.1					
6846	PENWD 1G13.8	38.8	38.9	0.1					
7106	CHALK U324.0	612.0	612.1	0.1					
7107	CHALK U424.0	612.0	613.0	1.0					
7110	CHALKCT313.8	91.0	94.0	3.0					

GENERATION PARTICIPATION FOR INTERFACES

NYPP - PJM

<---------- STUDY SYSTEM ---------->				<---------- OPPOSING SYSTEM ---------->			
		<---- GENERATOR MW ---->				<---- GENERATOR MW ---->	
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
74190	ROSE GN1 24.0	534.5	537.7	3.2	204	C.SLOPE 115	50.0	47.1	-2.9
74194	DANSK G3 16.1	136.0	136.5	0.5	372	SHAWVL 322.0	0.0	-6.0	-6.0
74632	E RIVER 69.0	334.0	341.8	7.8	451	SEWARD 115	117.5	114.8	-2.7
74700	AK 3 22.0	500.0	516.7	16.7	1702	GLATFLTR 13.2	0.0	-1.4	-1.4
74704	AST 3 20.0	360.0	372.0	12.0	1727	PORT2GEN 15.5	226.4	225.8	-0.6
74708	RAV 2 20.0	360.0	372.0	12.0	1730	TITUS 1G 13.8	0.0	-2.7	-2.7
75885	HICK 1G 13.8	49.9	51.6	1.7	2899	S RIV G3 13.8	0.0	-2.8	-2.8
75887	HICK 2G 13.8	50.0	51.7	1.7	2907	KITTGEN1 13.8	0.0	-4.7	-4.7
77953	OSWGO 6G 22.0	850.0	878.3	28.3	2925	RR GEN5 13.8	105.3	104.9	-0.4
79391	BOWLIN20 20.0	558.0	564.4	6.4	3146	MONTUR 124.0	186.6	168.5	-18.1
79394	LOVETT 5 20.0	190.0	191.4	1.4	4062	CONOW3-4 13.8	25.6	24.1	-1.5
79528	GILBOA#2 17.0	250.0	258.3	8.3	4112	EDDYSTN2 20.0	0.0	-10.1	-10.1
					5129	EAGLE PT 230	172.5	171.7	-0.8
					5180	BERGENGT 24.0	0.0	-14.1	-14.1
					5904	CRANE G2 20.0	109.2	106.5	-2.7
					5911	PERRYG51 18.0	0.0	-5.8	-5.8
					7104	CHALK U1 20.0	0.0	-11.4	-11.4
					7175	PANDACT1 13.8	28.6	27.0	-1.6
					8102	BLE#2 ST 18.0	40.3	36.5	-3.8
					8884	EM4 19.0	158.1	157.8	-0.3
					8889	HR3 13.8	0.0	-2.7	-2.7
					9217	IR2 14.4	0.0	-3.0	-3.0

GENERATION PARTICIPATION FOR INTERFACES

ONTARIO - NEW YORK

<---------- STUDY SYSTEM ---------->				<---------- OPPOSING SYSTEM ---------->			
		<---- GENERATOR MW ---->				<---- GENERATOR MW ---->	
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
80900	LAKEVWG518.0	233.2	733.2	500.0	74190	ROSE GN124.0	539.5	239.5	-300.0
81765	NANTICG622.0	485.0	985.0	500.0	74702	RAV 3 22.0	851.5	601.5	-250.0
					76640	DUNKGEN313.8	190.0	140.0	-50.0
					77051	HNTLY68G13.8	185.0	135.0	-50.0
					78955	ALBY STM13.2	370.7	320.7	-50.0
					79547	JAFITZ1G24.0	820.0	520.0	-300.0

NEW YORK - ONTARIO

<---------- STUDY SYSTEM ---------->				<---------- OPPOSING SYSTEM ---------->			
		<---- GENERATOR MW ---->				<---- GENERATOR MW ---->	
BUS	BUS NAME	BASE	SHIFT	CHANGE	BUS	BUS NAME	BASE	SHIFT	CHANGE
74190	ROSE GN124.0	539.5	839.5	300.0	80900	LAKEVWG518.0	233.2	-266.8	-500.0
74193	DANSK G416.1	226.0	526.0	300.0	81765	NANTICG622.0	485.0	-15.0	-500.0
78955	ALBY STM13.2	370.7	470.7	100.0					
79390	BOWLINE 20.0	525.8	675.8	150.0					
79546	POLETTI 26.0	567.2	717.2	150.0					

TABLE 1

DISTRIBUTION FACTORS FOR DYSINGER EAST CIRCUITS

WINTER 1999

TABLE1

<------ FACILITY ------->			%PICKUP OF TRANSFER	KINTI -ROCH	NIAGAR -ROCH	STOLLE -MEYER	LOCKPT -SOUR	LOCKPT -SHEL	NIAGAR -ROCH
GOLAH66K	MORT66KV	# 1	**	**	**	**	**	**	**
KINTI345	ROCH 345	# 1	21.1	TRIP	46.7	14.8	14.9	13.6	O/S
LOCKPORT	NAKR-108	# 1	1.0	1.3	1.6	1.4	4.2	3.9	3.0
LOCKPORT	OAKFLDTP	# 1	**	1.6	1.9	1.7	4.9	4.6	3.6
LOCKPORT	SHEL-113	# 1	2.7	3.5	4.3	3.8	14.3	TRIP	7.9
LOCKPORT	SOUR-111	# 1	2.5	3.3	4.0	3.6	TRIP	12.2	7.5
LOCKPORT	TELRDTP1	# 1	2.6	1.6	1.9	1.7	6.2	6.7	3.6
LOCKPORT	TELRDTP1	# 1	1.2	3.4	4.1	3.7	11.5	19.7	7.6
NIAG345	ROCH 345	# 1	31.0	55.1	TRIP	24.9	22.7	19.9	TRIP
STOLE230	MEYER230	# 1	9.0	6.0	7.3	TRIP	6.4	5.9	14.8
*** SUB-TOTALS ***			71.1	75.8	71.8	55.6	85.1	86.5	48.0
*** L33P-L34P ***			**	9.3	10.1	8.5	4.3	3.9	18.6
*** PJM-NYPP ***			28.9	14.9	18.1	35.9	10.6	9.6	33.4
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0	100.0

* GENERATION DISPATCHED AS DESCRIBED IN THE PREVIOUS SECTION
FLOW ON ALL PHASE SHIFTERS HELD FIXED
** LESS THAN 1.0% PICKUP

TABLE 2

DISTRIBUTION FACTORS FOR WEST CENTRAL CIRCUITS

WINTER 1999

TABLE2

<------ FACILITY ------->			%PICKUP OF TRANSFER	PANNEL -CLAY	STOLLE -MEYER	QUAKER -SLEGH	PANNEL -FARM	PANNEL -CLAY
MORTIMER	LAWLER-1	# 1	2.2	2.6	1.3	4.1	19.0	6.2
MORTIMER	LAWLER-2	# 1	2.3	2.9	1.1	4.6	4.0	7.0
PANNELLI	FRMGTN-4	# 1	2.5	6.2	8.9	18.9	TRIP	14.9
PANNELL3	CLAY	# 1	27.0	TRIP	10.9	18.7	20.3	O/S
PANNELL3	CLAY	# 2	27.2	58.9	10.9	18.8	20.4	TRIP
QUAKER	MACDN115	# 1	**	**	**	19.9	2.7	1.0
QUAKER	SLEIG115	# 1	2.0	3.6	2.0	TRIP	11.2	8.9
STA 162	S.PER115	# 1	**	1.9	20.5	2.4	5.0	4.5
STOLE230	MEYER230	# 1	9.0	3.1	TRIP	3.0	8.3	7.4
*** SUB-TOTALS ***			72.2	79.2	55.6	90.4	90.9	49.9
*** L33P-L34P ***			**	7.4	8.5	3.0	2.3	17.9
*** PJM-NYPP ***			27.8	13.4	35.9	6.6	6.8	32.2
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0

* GENERATION DISPATCHED AS DESCRIBED IN THE PREVIOUS SECTION
FLOW ON ALL PHASE SHIFTERS HELD FIXED
** LESS THAN 1.0% PICKUP

TABLE 3

DISTRIBUTION FACTORS FOR TOTAL EAST CIRCUITS

WINTER 1999

TABLE3

<---- FACILITY ---->	%PICKUP OF TRANSFER	PORTER -RTRDM	EDIC34 -NSCOT	MARCY3 -NSCOT	FRASER -GILBA	BRBURG -RAMPO	WALDWK -SMAWA	HUDSON -FARGT	LINDEN -GOETH	WALDWK -SMAWA	HUDSON -FARGT
BRANCHBG RAMAPO 5 # 1	**	2.1	3.5	3.6	3.2	TRIP	3.1	7.8	22.1	26.5	11.9
COOPC345 ROCK TAV # 1	16.9	3.8	6.7	7.1	17.9	4.5	**	**	1.4	3.1	**
COOPC345 ROCK TAV # 2	16.9	3.8	6.7	7.1	17.9	4.5	**	**	1.4	3.1	**
E.SPR115 INGHAM-E # 1	**	1.0	**	**	2.6	**	**	**	**	**	**
EDIC N.SCOT77 # 1	21.0	15.8	TRIP	33.2	23.0	3.3	**	1.4	2.5	1.4	2.2
FRASR345 GILB 345 # 1	16.6	9.4	23.0	23.9	TRIP	3.5	**	2.2	3.4	1.1	3.3
HUDSON1 FARRGUT1 # 1	**	1.0	1.7	1.7	2.2	8.4	2.9	TRIP	18.6	26.2	O/S
HUDSON2 FARRGUT2 # 1	**	1.1	1.9	1.9	2.4	9.6	3.2	33.9	21.5	27.9	TRIP
INGMS-CD INGHAM-E # 1	**	9.4	3.6	3.6	**	**	**	**	**	**	**
LINDEN GOETHALS # 1	**	1.0	1.7	1.8	2.1	14.4	1.0	11.2	TRIP	9.2	17.3
MARCY T1 N.SCOT99 # 1	19.8	14.9	35.5	TRIP	21.1	3.5	**	1.5	2.7	1.5	2.3
PLAT T#3 GRAND IS # 1	**	2.5	2.1	2.2	1.3	**	**	**	**	**	**
PORTER 2 ROTRDM.2 # 1	4.4	TRIP	5.5	5.5	3.1	**	**	**	**	**	**
PORTER 2 ROTRDM.2 # 2	4.4	34.2	5.6	5.7	3.2	**	**	**	**	**	**
WALDWICK SMAHWAH1 # 1	**	**	1.3	1.4	**	25.7	89.8	20.2	12.4	O/S	33.6
WALDWICK SMAHWAH2 # 1	**	**	1.2	1.3	**	22.6	TRIP	21.8	14.0	TRIP	29.4
***TOTALS ***	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* GENERATION DISPATCHED AS DESCRIBED IN THE PREVIOUS SECTION
FLOW ON ALL PHASE SHIFTERS HELD FIXED
** LESS THAN 1.0% PICKUP

TABLE 4

DISTRIBUTION FACTORS FOR UPNY - CONED CIRCUITS

WINTER 1999

TABLE4

<------ FACILITY ------->			%PICKUP OF TRANSFER	PLVLLY -MILLW	PLVLLY -FISHK	RAMAPO -BUCHN	LADNTW -BUCHS	LINDEN -GOETH	HUDSON -FARGT	ROSETN -FISHK
E FISH I	FISHKILL	# 1	**	**	2.4	**	**	**	**	5.9
FISHKILL	SYLVN115	# 1	1.0	**	**	**	**	**	**	**
LADENTWN	BUCH S	# 1	14.6	17.6	-3.7	54.9	TRIP	23.9	23.8	23.4
PLTVLLEY	FISHKILL	# 1	7.8	26.0	TRIP	**	-7.1	1.1	**	32.5
PLTVLLEY	FISHKILL	# 2	7.8	23.9	66.6	**	-7.1	1.1	**	32.5
PLTVLLEY	MILLWOOD	# 1	17.6	TRIP	9.0	2.9	12.5	2.8	1.8	-8.8
PLTVLLEY	WOOD B	# 1	17.3	35.3	9.2	2.9	14.4	2.8	1.8	-8.5
RAMAPO	BUCH N	# 1	13.3	3.1	**	TRIP	41.7	17.3	18.1	13.5
ROSETON	FISHKILL	# 1	20.6	-11.1	15.2	15.7	21.2	9.3	8.2	TRIP
*** SUB-TOTALS ***			100.0	94.8	98.7	76.4	75.6	58.3	53.7	90.5
*** HUDSON-FAR#1 ***			**	1.1	**	9.0	10.0	21.5	33.9	3.8
*** HUDSON-FAR#2 ***			**	**	**	8.1	9.0	18.6	TRIP	3.4
*** LINDEN-GOETH ***			**	**	**	4.9	5.4	TRIP	11.2	2.3
*** NORHBR-NRPRT ***			**	4.1	1.3	1.6	**	1.6	1.2	**
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* GENERATION DISPATCHED AS DESCRIBED IN THE PREVIOUS SECTION
FLOW ON ALL PHASE SHIFTERS HELD FIXED
** LESS THAN 1.0% PICKUP

TABLE 5

DISTRIBUTION FACTORS FOR SPRAINBROOK\DUNWOODIE-SOUTH CIRCUITS

WINTER 1999

TABLE5

<------- FACILITY -------->			%PICKUP OF TRANSFER	SPRAIN -TRMNT	SPRAIN -W49TH	DUNWDE -RAINY	DUNWDE -SHORE	SPRAIN -DVNPT	SPRAIN -W49TH	DUNWDE -RAINY
DUN NO1R	S CREEK	# 1	**	15.0	**	**	2.1	1.5	**	**
DUN NO2R	S CREEK	# 1	**	15.2	**	**	2.1	1.5	**	**
DUN SO1R	E179 ST	# 1	**	22.4	**	**	3.1	2.2	**	1.1
DUNWODIE	RAINEY	# 3	23.6	8.2	23.9	TRIP	9.5	3.2	43.4	O/S
DUNWODIE	RAINEY	# 4	23.6	8.2	23.9	49.0	9.5	3.2	45.3	TRIP
DUNWODIE	SHORE RD	# 1	7.0	5.9	**	1.2	TRIP	54.2	1.0	2.1
REACTY49	DVNPT NK	# 1	**	4.4	**	**	48.3	TRIP	1.5	**
SPRBROOK	TREMONT	# 1	**	TRIP	**	**	4.0	3.4	1.4	1.2
SPRBROOK	W 49 ST	# 1	22.9	8.8	TRIP	23.4	4.4	7.2	O/S	45.3
SPRBROOK	W 49 ST	# 2	22.9	8.8	48.9	23.4	4.4	7.2	TRIP	43.0
*** SUB-TOTALS ***			100.0	96.9	96.7	97.0	87.4	83.6	92.6	92.7
*** HUDSON-FAR#1 ***			**	**	1.7	1.6	**	**	3.1	3.0
*** HUDSON-FAR#2 ***			**	**	1.6	1.4	**	**	2.8	2.7
*** LINDEN-GOETH ***			**	2.1	**	**	**	**	1.5	1.6
*** NORHBR-NRPRT ***			**	1.0	**	**	12.6	16.4	**	**
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* GENERATION DISPATCHED AS DESCRIBED IN THE PREVIOUS SECTION
FLOW ON ALL PHASE SHIFTERS HELD FIXED
** LESS THAN 1.0% PICKUP

TABLE 6

DISTRIBUTION FACTORS FOR MOSES SOUTH CIRCUITS

WINTER 1999

TABLE6

<------ FACILITY ------->			%PICKUP OF TRANSFER	MASSEN -MARCY	MASSEN -CHAT	MOSES2 -ADRON	MOSES2 -PORTR
ALCOA-NM	BRADY	# 1	1.0	2.1	**	**	1.9
DENNISON	ANDRWS-4	# 1	2.2	4.5	**	1.5	3.9
DENNISON	LWRNCE-B	# 1	2.2	4.5	**	1.5	3.9
MASS 765	MARCY765	# 1	76.0	TRIP	69.8	45.9	O/S
MOSES W	ADRON B1	# 1	9.3	20.0	3.5	TRIP	TRIP
MOSES W	ADRON B2	# 1	9.3	20.1	3.5	36.5	50.1
*** SUB-TOTALS ***			100.0	51.2	76.8	85.4	59.8
*** MOSES-L33P ***			**	15.3	8.4	4.4	12.4
*** MOSES-L34P ***			**	21.7	11.8	6.2	17.6
*** MOSES-WILLE ***			**	5.9	1.5	2.0	5.1
*** MOSES-WILLW ***			**	5.9	1.5	2.0	5.1
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0

* GENERATION DISPATCHED AS DESCRIBED IN THE PREVIOUS SECTION
FLOW ON ALL PHASE SHIFTERS HELD FIXED
** LESS THAN 1.0% PICKUP

TABLE 7

DISTRIBUTION FACTORS FOR NYPP - NEPOOL CIRCUITS

WINTER 1999

TABLENE

<---- FACILITY ----->	%PICKUP OF TRANSFER	ALPS34 -MANY	PV.345 -LNGMT	NHHAR -GEN	VTYANK -GEN	YRMTH -GEN	SBRK -GEN	HIGATE -DC	ELLRIVER	MADWAS -DC
ALPS345 MANY393 # 1	36.8	TRIP	44.3	22.4	45.1	38.1	38.7	16.0	38.1	38.9
HOOSICK BNNINGTN # 1	3.1	10.4	2.8	1.5	2.2	2.7	2.7	**	2.7	2.7
NRTHPT P NORHR138 # 1	**	12.1	38.4	20.2	9.3	10.3	10.4	5.5	10.3	10.3
PLAT T#3 GRAND IS # 1	**	5.9	3.5	2.8	5.0	5.4	5.3	52.7	5.4	5.4
PLTVLLEY CTNY398 # 1	48.0	45.9	TRIP	46.8	26.5	30.9	30.4	13.9	30.9	30.1
ROTRDM.2 BRSWAMP # 1	7.6	16.9	7.3	4.4	6.6	8.1	8.2	2.4	8.1	8.1
WHITEHAL BLISSVIL # 1	4.5	8.8	3.7	1.9	5.3	4.5	4.3	9.5	4.5	4.5
*** TOTALS ***	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* GENERATION DISPATCHED AS DESCRIBED IN THE PREVIOUS SECTION
FLOW ON ALL PHASE SHIFTERS HELD FIXED
** LESS THAN 1.0% PICKUP

TABLE 8

DISTRIBUTION FACTORS FOR NYPP - ONTARIO CIRCUITS

WINTER 1999

TABLEOH

<------ FACILITY ------->			%PICKUP OF TRANSFER	PA27 -NIAGAR	BP76 -PACKD2	STLAWR -MOSES	STLAWR -MOSES	BECKB -NIAGAR
BECK A	NIAG 345	# 1	23.9	33.7	31.7	10.6	8.9	52.7
BECK B	NIAG 345	# 1	23.9	33.8	30.9	10.7	8.9	TRIP
BP76 REG	PACKARD2	# 1	11.4	27.0	TRIP	5.5	4.6	17.7
PA27 REG	NIAGAR2W	# 1	13.7	TRIP	31.3	6.4	5.4	23.2
STLAWL33	MOSES E	# 1	**	**	**	47.0	TRIP	1.0
STLAWL34	MOSES E	# 1	**	1.3	1.3	TRIP	55.6	1.5
*** SUB-TOTALS ***			72.9	95.8	95.2	80.2	83.4	96.1
*** OH-MICH ***			27.1	4.2	4.8	19.8	16.6	3.9
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0

* GENERATION DISPATCHED AS DESCRIBED IN THE PREVIOUS SECTION
FLOW ON ALL PHASE SHIFTERS HELD FIXED
** LESS THAN 1.0% PICKUP

TABLE 9

DISTRIBUTION FACTORS FOR NYPP - PJM CIRCUITS

WINTER 1999

TABLEPJ

<---- FACILITY ---->			%PICKUP OF TRANSFER	ERIESO -FALCS	HMRCTY -STOLL	HMRCTY -WATER	E.TOWD -HILLS	BRBURG -RAMPO	WALDWK -SMAWA	HUDSON -FARGT	LINDEN -GOETH	WALDWK -SMAWA	HUDSON -FARGT
BRANCHBG	RAMAPO 5	#1	47.8	6.9	7.1	12.5	8.0	TRIP	3.1	7.8	24.3	26.5	11.9
E.SAYRE	N.WAV115	#1	**	2.0	1.4	4.1	30.7	1.3	**	**	**	**	**
E.TWANDA	HILSD230	#1	20.4	6.1	3.6	20.5	TRIP	3.5	**	1.3	2.2	2.2	2.0
ERIE E	S RIPLEY	#1	19.1	TRIP	21.8	7.5	4.8	2.4	**	**	1.5	1.1	1.1
HOMER CY	STOLE345	#1	4.8	15.6	TRIP	15.3	2.0	1.8	**	**	1.1	**	**
HOMER CY	WATRC345	#1	7.9	6.6	20.9	TRIP	13.5	3.8	**	1.1	2.3	1.7	1.7
HUDSON1	FARRGUT1	#1	**	2.3	2.4	4.0	3.3	8.4	2.9	TRIP	18.6	25.2	O/S
HUDSON2	FARRGUT2	#1	**	2.6	2.7	4.5	3.7	9.6	3.2	33.9	21.5	30.8	TRIP
LAUREL L	GOUDY115	#1	**	**	**	2.2	11.4	1.1	**	**	**	**	**
LINDEN	GOETHALS	#1	**	2.8	2.8	4.9	3.3	14.4	1.0	11.2	TRIP	9.2	17.3
WALDWICK	SMAHWAH1	#1	**	3.0	3.0	5.1	4.4	24.2	89.8	23.0	12.4	O/S	33.4
WALDWICK	SMAHWAH2	#1	**	2.8	2.8	4.8	4.2	22.6	TRIP	19.6	11.8	TRIP	29.4
WARREN	FALCONER	#1	**	24.5	8.4	1.8	3.0	**	**	**	**	**	**
*** SUB-TOTALS ***			100.0	75.2	76.9	87.2	92.3	93.1	100.0	97.9	95.7	96.7	96.8
*** OH-MICH ***			**	24.8	23.1	12.8	7.7	6.9	**	2.1	4.3	3.3	3.2
*** TOTALS ***			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* GENERATION DISPATCHED AS DESCRIBED IN THE PREVIOUS SECTION
FLOW ON ALL PHASE SHIFTERS HELD FIXED
** LESS THAN 1.0% PICKUP

TABLE 10A
GENERATION SHIFT FACTORS WITH ALL PHASE ANGLE REGULATORS HOLDING MW FLOW
WINTER 1999

TABLE10A

<------ FACILITY ------->	BBURG -RAMAPO	CENTRAL -EAST	MARCY -SOUTH	OH -MICH	OH -NYPP	PJM -NYPP	UTICA -ALBANY	WEST -CENTRAL
*** ALBANY ***	**	14.8	-10.7	**	**	**	12.8	**
*** BB-RAMAPO ***	-100.0	43.7	17.5	-25.9	25.9	-26.0	41.3	49.1
*** BECK ***	**	-46.9	-22.1	-13.7	-86.3	-13.6	-44.7	-77.9
*** BOWEN ***	**	-44.2	-18.2	31.9	-31.9	-68.1	-41.8	-54.0
*** BOWLINE ***	**	-1.2	1.0	**	**	**	-1.1	**
*** BRANDON ***	**	-43.9	-17.8	27.8	-27.8	-72.2	-41.5	-51.1
*** BRAYTON ***	**	10.2	-7.7	**	**	**	7.8	**
*** CHAT ***	**	-55.8	-33.2	**	**	**	-53.3	1.6
*** CONEMAUGH ***	**	-43.8	-17.8	26.7	-26.7	-73.3	-41.4	-50.8
*** DUNKIRK ***	**	-45.6	-20.3	3.3	-3.3	3.4	-43.4	-70.2
*** EDDYSTONE ***	**	-43.7	-17.6	26.2	-26.2	-73.8	-41.3	-49.5
*** GILBOA ***	**	-1.3	-1.4	**	**	**	**	**
*** HATFIELD ***	**	-44.0	-18.0	28.8	-28.8	-71.1	-41.6	-52.5
*** HUDSON ***	**	-43.6	-17.5	25.6	-25.6	-74.3	-41.2	-48.6
*** HUNTLEY ***	**	-46.6	-21.7	-7.1	7.1	-7.0	-44.4	-77.8
*** INDIANPT2 ***	**	-1.0	**	**	**	**	**	**
*** JEAMOS ***	**	-44.2	-18.3	31.9	-31.9	-68.0	-41.8	-54.2
*** LAMBTON ***	**	-45.4	-20.0	-44.3	-55.7	-44.2	-43.1	-64.8
*** LUDINGTON ***	**	-44.6	-18.8	38.9	-38.9	-61.1	-42.2	-57.4
*** MEYANKEE ***	**	11.2	-8.4	**	**	**	8.2	**
*** MONROE ***	**	-44.6	-18.9	40.3	-40.4	-59.6	-42.3	-58.2
*** MTSTORM ***	**	-44.0	-18.0	29.2	-29.2	-70.7	-41.6	-52.5
*** NANTICOKE ***	**	-46.2	-21.2	-27.3	-72.8	-27.2	-44.0	-72.1
*** NIAGARA ***	**	-46.8	-22.0	-6.9	6.9	-6.8	-44.6	-78.7
*** NORWALK ***	**	6.2	-4.7	**	**	**	5.0	**
*** OSWEGO ***	**	-51.7	-29.2	-1.3	1.3	-1.2	-50.0	2.7
*** PORTLAND ***	**	-43.6	-17.4	25.3	-25.3	-74.7	-41.2	-48.1
*** ROSETON ***	**	**	**	**	**	**	**	**
*** SALEM ***	**	-43.7	-17.6	26.3	-26.3	-73.7	-41.3	-49.6

* GENERATION DISPATCHED AS DESCRIBED IN PREVIOUS SECTION
FLOW ON PHASE SHIFTERS HELD FIXED
** LESS THAN 1.0% PICKUP

TABLE 10B
GENERATION SHIFT FACTORS WITH ALL PHASE ANGLE REGULATORS FREE FLOWING

WINTER 1999

TABLE10B

<------ FACILITY ------->	BBURG -RAMAPO	CENTRAL -EAST	MARCY -SOUTH	OH -MICH	OH -NYPP	PJM -NYPP	UTICA -ALBANY	WEST -CENTRAL
*** ALBANY ***	-1.7	20.6	-8.6	-4.0	4.3	-1.1	16.0	4.6
*** BB-RAMAPO ***	-100.0	9.3	4.9	-6.9	7.4	38.2	8.3	8.4
*** BECK ***	-11.6	-30.4	-15.0	-21.4	-77.2	-27.7	-27.1	-47.5
*** BOWEN ***	-20.2	-16.4	-6.6	16.1	-17.7	-94.1	-14.5	-15.9
*** BOWLINE ***	4.8	-1.3	**	**	**	13.2	-1.2	**
*** BRANDON ***	-22.5	-12.8	-4.6	9.9	-10.6	-103.1	-11.3	-11.2
*** BRAYTON ***	-1.0	14.4	-5.8	-3.1	3.3	**	9.5	3.2
*** CHAT ***	-5.1	-45.6	-26.4	-9.9	10.6	-10.0	-40.1	4.0
*** CONEMAUGH ***	-21.8	-13.7	-4.9	9.4	-10.0	-103.1	-12.1	-11.8
*** DUNKIRK ***	-14.0	-25.7	-11.7	-7.3	7.8	-14.6	-22.9	-39.6
*** EDDYSTONE ***	-24.8	-9.5	-3.0	6.1	-6.5	-108.9	-8.4	-7.4
*** GILBOA ***	-1.8	4.4	1.3	-3.7	4.0	**	4.7	4.7
*** HATFIELD ***	-20.8	-15.3	-5.8	12.6	-13.5	-98.8	-13.5	-14.2
*** HUDSON ***	-5.7	-3.0	**	1.5	-1.6	-126.5	-2.6	-1.8
*** HUNTLEY ***	-11.9	-29.5	-14.2	-15.7	16.7	-21.8	-26.3	-49.0
*** INDIANPT2 ***	3.8	-1.1	**	**	**	10.5	**	**
*** JEAMOS ***	-20.0	-16.7	-6.7	16.6	-17.8	-93.9	-14.7	-16.3
*** LAMBTON ***	-15.8	-23.8	-11.0	-55.4	-44.0	-64.2	-21.0	-26.6
*** LUDINGTON ***	-18.5	-19.1	-8.2	25.6	-26.5	-84.0	-16.9	-19.8
*** MEYANKEE ***	-1.1	15.9	-6.5	-3.4	3.6	**	9.9	3.4
*** MONROE ***	-18.1	-19.9	-8.6	28.4	-28.9	-81.2	-17.6	-21.0
*** MTSTORM ***	-21.1	-14.9	-5.7	12.7	-13.6	-98.9	-13.2	-13.8
*** NANTICOKE ***	-12.9	-29.0	-14.2	-34.0	-63.9	-42.0	-25.5	-33.8
*** NIAGARA ***	-11.6	-30.0	-14.6	-15.4	16.4	-21.3	-26.9	-50.8
*** NORWALK ***	**	5.2	-1.8	-1.3	1.4	1.4	3.7	1.4
*** OSWEGO ***	-5.5	-41.6	-23.7	-8.1	8.7	-8.4	-38.1	13.2
*** PORTLAND ***	-18.6	-8.2	-2.3	4.4	-4.7	-117.6	-7.2	-5.4
*** ROSETON ***	**	1.6	1.3	-1.4	1.5	4.1	1.5	1.8
*** SALEM ***	-24.8	-9.5	-3.0	6.2	-6.6	-108.6	-8.4	-7.4

* GENERATION DISPATCHED AS DESCRIBED IN PREVIOUS SECTION
FLOW ON PHASE SHIFTERS HELD FIXED
** LESS THAN 1.0% PICKUP

APPENDIX F

ANNOTATED TLTG OUTPUT

This Section Is Available
On Computer Diskette If Requested

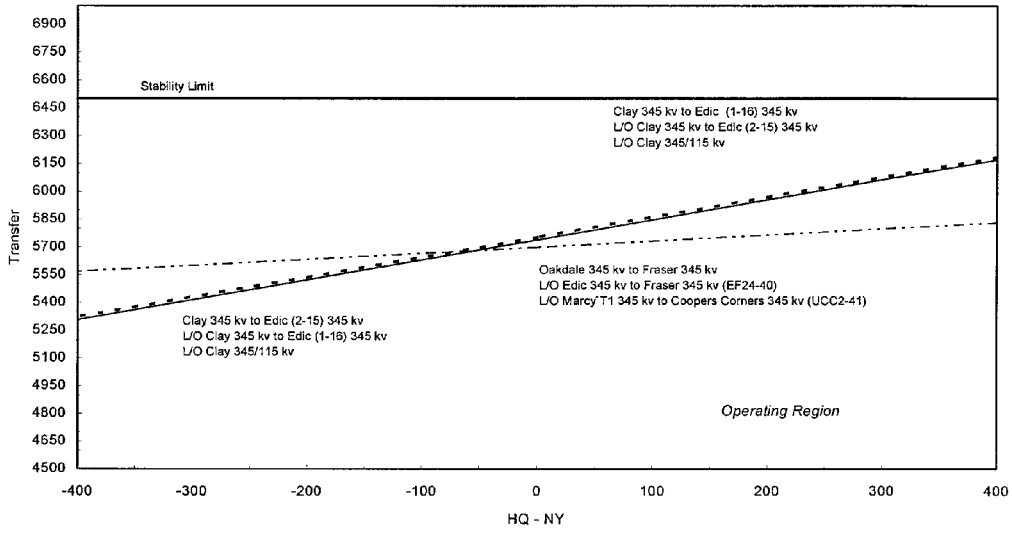
APPENDIX G

TRANSFER LIMIT SENSITIVITY GRAPHS

INDEX

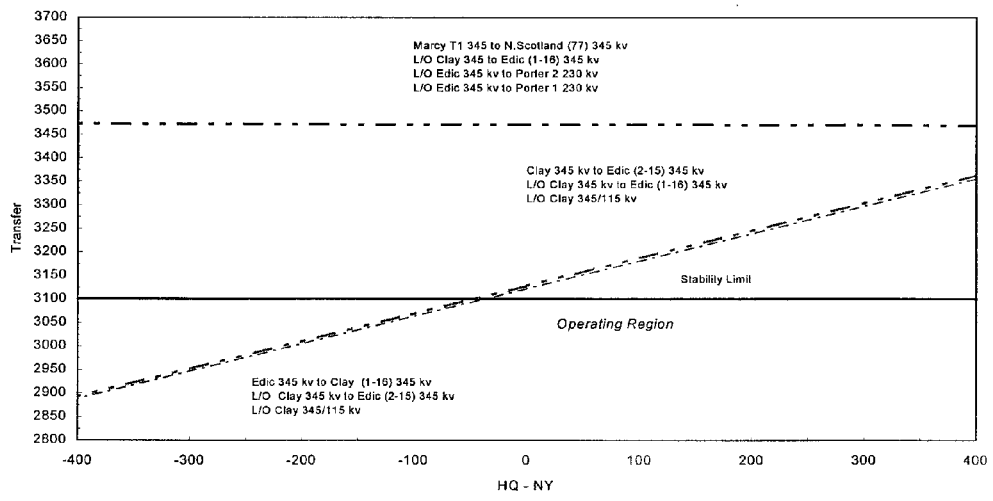
1. Total East vs HQ-NY G-1
2. Central East vs HQ-NY G-1
3. Total East vs Ramapo Par Flow G-2
4. Central East vs Ramapo Par Flow G-2
5. UPNY ConEd vs Ramapo Par Flow G-3
6. Moses South vs HQ Export to New York G-3
7. NYPP-IMO (ONTARIO) Transfer vs L33 & L34 . . . . . G-4
8. IMO (ONTARIO)-NYPP Transfer vs L33 & L34 . . . . . G-4

Total East vs. HQ
For Normal Transfer Criteria
Winter 1999



Positive Flow In Direction of Transfer

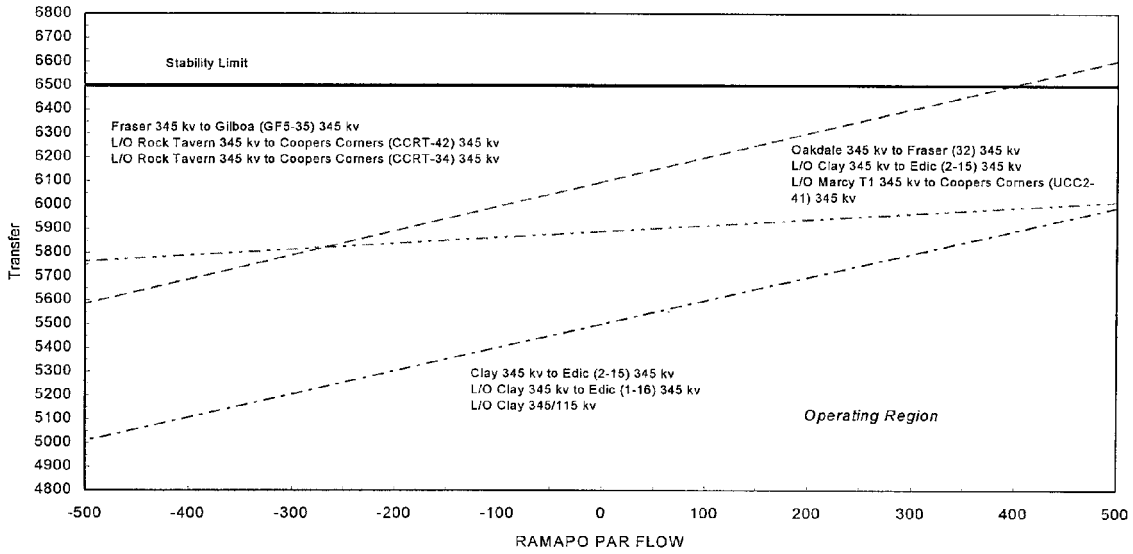
Central East vs. HQ
For Normal Transfer Criteria
Winter 1999



Positive Flow in Direction of Transfer

Total East vs. RAMAPO PAR Flow

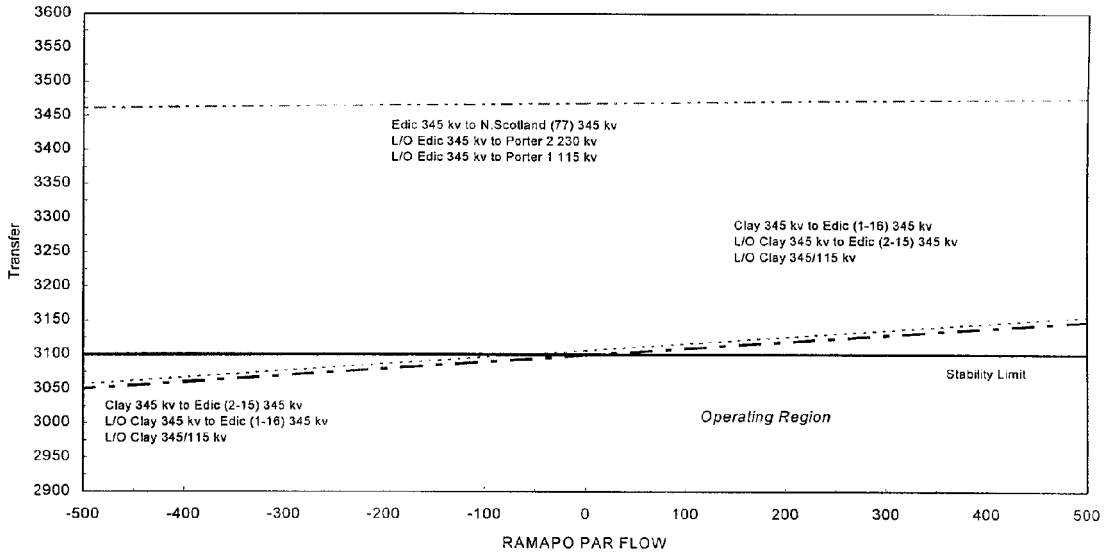
For Normal Transfer Criteria
Winter 1999



Positive Flow in Direction of Transfer

Central East vs. RAMAPO PAR Flow

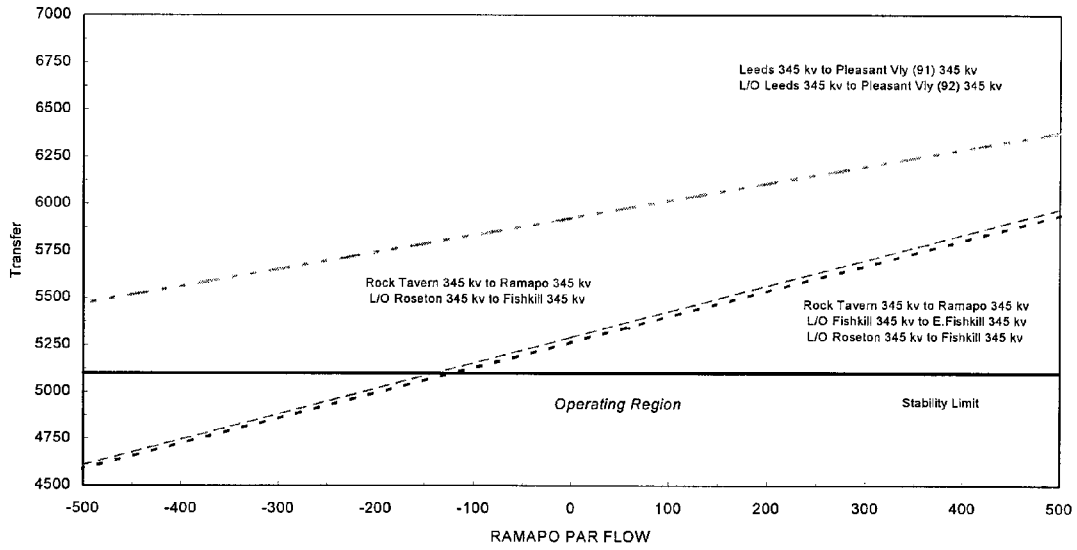
For Normal Transfer Criteria
Winter 1999



Positive Flow In Direction of Transfer

UPNY CONED vs. RAMAPO PAR Flow

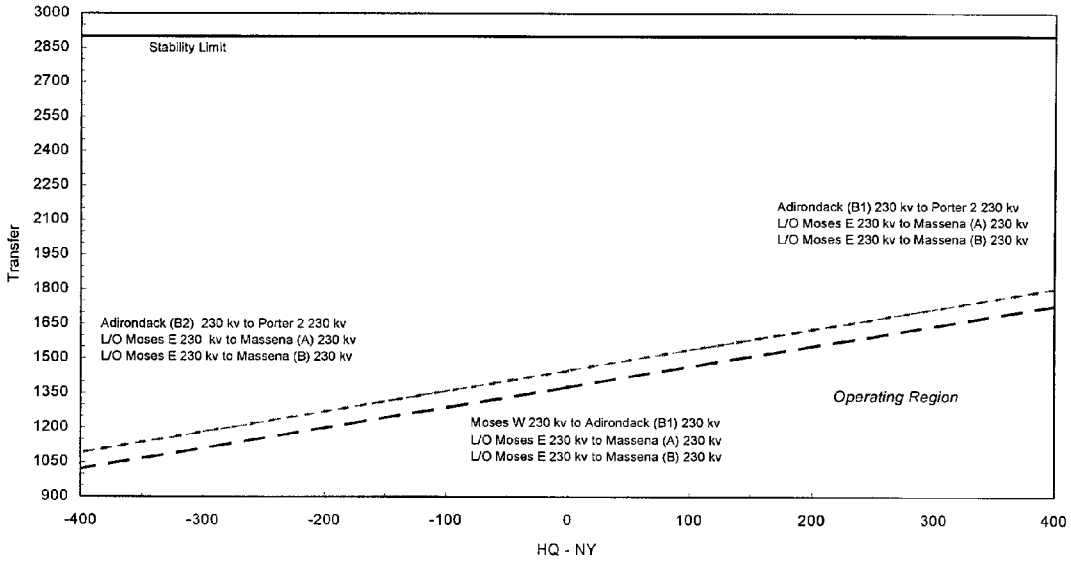
For Normal Transfer Criteria
Winter 1999



Positive Flow In Direction of Transfer

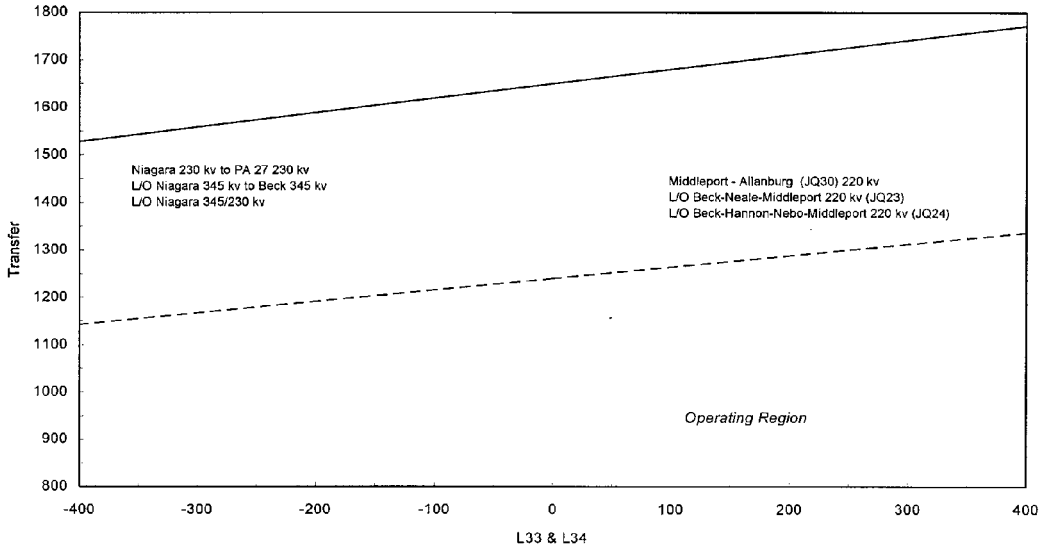
Moses South vs. HQ Export to New York

For Normal Transfer Criteria
Winter 1999



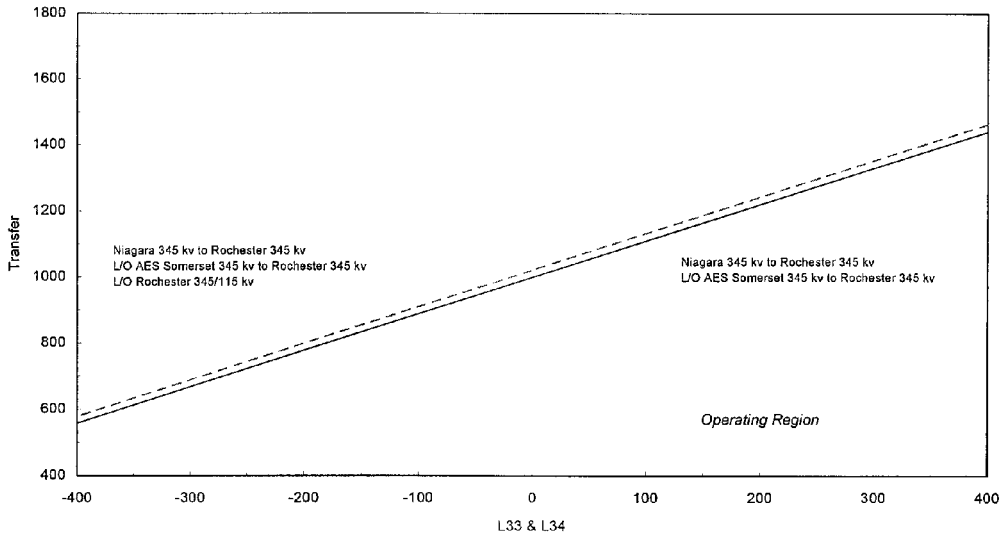
Positive Flow In Direction of Transfer

NYPP- IMO (Ontario) Transfer vs. L33 & L34
For Normal Transfer Criteria
Winter 1999



Positive Flow In Direction of Transfer

IMO (Ontario)-NYPP Transfer vs. L33 & L34
For Normal Transfer Criteria
Winter 1999



Positive Flow In Direction of Transfer

APPENDIX H

CROSS-STATE TRANSFER LIMITS
ALL LINES IN-SERVICE FOR WINTER 1999
COMPARED WITH WINTER 1998

WINTER 1999

NYPP WINTER 1999 CROSS-STATE THERMAL LIMITS

NOTE: For an explanation of the significant deltas witnessed between Winter 1998 and Winter 1999 Seasonal Study Limits, please see the Executive Summary, Section 4.I

			WINTER 1999 Limit (MW)	Contin-gency	WINTER 1998 Limit (MW)	Contin-gency	DELTA
Central East							
HQ > NY	0 MW	Normal	3122	9	3268	9	-146
		Emergency	3162	10	3301	10	-139
HQ >NY	400 MW	Normal	3470	9a	3489	9a	-19
		Emergency	3396	10	3528	10	-132
Total East							
HQ > NY	0 MW	Normal	5700	8	6496	8	-796
		Emergency	5821	10	6740	10	-919
HQ > NY	400 MW	Normal	5832	8	6605	8	-773
		Emergency	6253	10	7165	10	-912
Moses - South							
HQ > NY	0 MW	Normal	1375	11	1230	11	145
		Emergency	2234	11a	2090	11a	144
HQ > NY	400 MW	Normal	1729	11	1586	11	143
		Emergency	2717	11a	2573	11a	144

NYPP WINTER 1999 CROSS-STATE THERMAL LIMITS

NOTE: For an explanation of the significant deltas witnessed between Winter 1998 and Winter 1999 Seasonal Study Limits, please see the Executive Summary, Section 4.I.

		WINTER 1999		WINTER 1998		DELTA
		Limit (MW)	Contin-gency	Limit (MW)	Contin-gency	
Dysinger East	Normal	3381	1	3592	1	-211
	Emergency	3651	1a	3592	1	59
West Central	Normal	2665	2a	2620	2a	45
	Emergency	2867	3	2822	3	45
Upny - ConEd	Normal	5600	4a	5032	4	568
	Emergency	6600	5	5436	5	1164
Sprn/Dun-South	Normal	4384	6	4113	6	271
	Emergency	4384	6a	4113	6a	271
Con Ed - LIPA	Normal	770	7a	931	7	-161
	Emergency	1290	7a	1138	7a	152

NYPP WINTER 1999 CROSS-STATE THERMAL LIMIT CONTINGENCY LIST

	Limiting Element					Contingency
(1)	Niagara - Rochester (NR-2) 345 kV	@ LTE =	1745	MW	for L/O	AES Somerset - Rochester (SR-1) 345 kV
(1a)	Niagara - Rochester (NR-2) 345 kV	@ STE =	1904	MW	for L/O	AES Somerset - Rochester (SR-1) 345 kV
(2)	Pannell Rd. - Rochester (RP-2) 345 kV	@ LTE =	1744	MW	for L/O	(Breaker Failure @ Rochester 345 kV) Rochester - Pannell Rd. (RP-1) 345 kV Rochester 345/115 kV
(3)	Pannell Rd. - Clay (PC-2) 345 kV	@ STE =	1434	MW	for L/O	Pannell Rd. - Clay (PC-1) 345 kV
(4)	Leeds - Pleasant Valley (92) 345 kV	@ LTE =	1783	MW	for L/O	Leeds - Pleasant Valley (91) 345 KV
(4a)	Roseton - Fishkill 345 kV	@ LTE =	2773	MW	for L/O	Rock Tavern/Ramapo 345 kV Rock Tavern 345/115 kV
(5)	Leeds - Pleasant Valley (92) 345 kV	@ STE =	1912	MW	for L/O	Leeds - Pleasant Valley (91) 345 kV
(6)	Rainey - Dunwoodie (72) 345 kV	@ STE =	1113	MW	for L/O	Rainey - Dunwoodie (71) 345 kV Rainey-Dunwoodie 345/138 KV
(6a)	Rainey - Dunwoodie (71) 345 kV	@ STE =	1113	MW	for L/O	Rainey - Dunwoodie (72) 345 kV
(6b)	Sprain Brook - W 49 St (1) 345 KV	@ Nor =	736	MW	for	Pre Contingency Loading

NYPP WINTER 1999 CROSS-STATE THERMAL LIMIT CONTINGENCY LIST

	Limiting Element					Contingency
(7)	Dunwoodie - Shore Rd. (Y50) 345 kV	@ Nor =	664	MW	for L/O	Pre Contingency Loading
(7a)	Dunwoodie - Shore Rd. (Y50) 345 kV	@ Nor =	664	MW	for L/O	Pre Contingency Loading
(8)	Oakdale - Fraser (32) 345 kV	@ LTE =	1380	MW	for L/O	Marcy - Coopers Corner (UCC2-41) 345 kV Edic - Fraser (EF24-40) 345 kV
(9)	Edic - Clay (2-15) 345 kV	@ LTE =	1434	MW	for L/O	{Breaker Failure @ Clay} Clay-Edic (1-16) 345 kV Clay 345/115 kV bank
(9a)	Marcy - New Scotland (UNS-18) 345 kV	@ LTE =	1792	MW	for L/O	Edic - New Scotland 345 kV Edic 345 KV - Porter 2 230 KV
(10)	Clay - Edic (2-15) 345 kV	@ STE =	1434	MW	for L/O	Clay - Edic (1-16) 345 kV
(11)	Moses W - Adirondack 230 kV	@ LTE =	359	MW	for L/O	Moses E - Massena A 230 KV Moses E - Massena B 230 KV
(11a)	Moses E-Massena B 230 kV	@STE =	1404	MW	for L/O	Moses E- Massena A 230 KV

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APPENDIX J

NON-UTILITY GENERATION (NUG) SUMMARY

0 100.00 / THU, SEP 09 1999 14:57
1999/200 WINTER MEN/VEM FINAL BASE CASE
VEMNTR3F.SAV99W FINALIZED ON 7/20/99 - GT

CENTRAL HUDSON
****

BUS	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK	ZONE
74024	E.WALD 1 115	1	WALLKILL $	230	0.5	0.0	0.0	0.0	0.5		10
74027	FORGEBRK 115	1	GROVEVILLE $	193	0.8	0.0	0.0	0.0	0.8		10
74033	KNAPPS 1 115	1	WAPPINGERS $	232	2.0	0.0	0.0	0.0	2.0 ***		10
74046	ROCK TV1 115	1	SALISBURY M$	213	0.5	0.0	0.0	0.0	0.5		10
74046	ROCK TV1 115	2	MONTGOMERY $	229	0.2	0.0	0.0	0.0	0.2		10
74116	N.CAT 6 69	2	MILLPOND $	239	0.9	0.0	0.0	0.0	0.9		10
74142	W DEL 69 69	1	WEST DELAWA$	225	7.8	0.0	0.0	0.0	7.3 ***		10
74197	DUT. RES 115	1	DUTCH R REC$	207	6.2	0.0	0.0	0.0	8.5 ***		10
			SUBTOTAL	------	-----	-----	-----				
					18.9	0.0	0.0	0.0			

CON EDISON
****

BUS	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK	ZONE
77965	SITH-G1 18	1	SITHE GT 1 $	403	156.0	78.8	127	-80	170.0 ***		2
77966	SITH-G2 18	2	SITHE GT 2 $	403	156.0	78.8	127	-80	170.0 ***		2
77969	SITH-S5 18	5	SITHE STM 5$	403	209.3	91.6	105	-75	210.0 ***		2
77970	SITH-S6 18	6	SITHE STM 6$	403	209.3	91.6	105	-75	210.0 ***		2
*****											
78951	JMCGT13 13	1	JMC-PH2A $	346	60.0	3.3	43.0	-12	107.0 ***		4
78952	JMC2ST13 13	1	JMC-PH2B $	346	132.0	9.7	49.0	-49	79.0 ***		4
78953	JMCGT213 13	1	JMC-PH2C $	346	60.0	3.3	43.0	-12	79.0 ***		4
*****											
74652	BNSHR#1 27	1	YORK WARBA1$	348	2.8	0.6	0.6	0.0	4.0 ***		15
74652	BNSHR#1 27	2	YORK WARBA2$	348	14.2	2.9	2.9	0.0	17.0 ***		15
74652	BNSHR#1 27	4	CONEY ISL. $	.	2.0	0.7	0.7	0.0	2.0		15
74652	BNSHR#1 27	5	WOODHULL HO$	.	2.0	0.7	0.7	0.0	2.0		15
74709	COGENGT1 13	1	COGEN GT1 $	344	78.0	41.2	50.0	-20	78.0		15
74710	COGENGT2 13	1	COGEN GT2 $	344	78.0	41.2	50.0	-20	78.0		15
74711	COGENGT3 13	1	COGEN GT3 $	344	78.0	41.2	50.0	-20	78.0		15
74712	COGENGT4 13	1	COGEN GT4 $	344	78.0	41.2	50.0	-20	78.0		15
74713	COGENGT5 13	1	COGEN GT5 $	344	78.0	41.2	50.0	-20	78.0		15
74714	COGENST1 13	1	COGEN ST1 $	344	85.0	41.2	50.0	-20	85.0		15
74715	COGENST2 13	1	COGEN ST2 $	344	85.0	41.2	50.0	-20	85.0		15
74716	COGENST3 13	1	COGEN ST3 $	344	85.0	41.2	50.0	-20	85.0		15
74734	YORK G1 13	1	NAVY YARD A$	411	40.0	30.0	30.0	-16	260.0 ***		15
74735	YORK G2 13	1	NAVY YARD B$	.	40.0	12.0	12.0	-7.0	40.0		15
74736	YORK G3 13	1	NAVY YARD C$	.	100.0	54.9	68.0	-36	90.0 ***		15
*****											
74409	PEEK13.8 13	1	PEEKSKILL $	241	55.0	12.8	35.0	0.0	55.0		23
*****											
74733	YORK G4 13	1	YORK G4 $	.	100.0	33.7	68.0	-36	110.0 ***		997
			SUBTOTAL	------	-----	-----	-----				
					1983.6	835.0	1216.9	-588.5			

LIPA
****

BUS	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK	ZONE
74922	GRMN B 13	1	TBG-GRUM GT$	285	18.1	4.6	7.5	-3.6	45.0 ***		12
74922	GRMN B 13	2	TBG-GRUM GT$	.	18.1	4.6	7.5	-3.6	29.0 ***		12
74922	GRMN B 13	3	TBG-GRUM ST$	.	8.7	2.2	3.6	-1.7	14.0 ***		12
74924	ISLIP LF 13	1	ISLIP (LF) $	291	2.7	2.5	2.5	0.0	1.7 ***		12
74926	TRIGEN 13	1	TRIGEN GT $	324	13.8	0.0	7.7	-3.7	42.0 ***		12
74926	TRIGEN 13	2	TRIGEN STM $	.	34.5	0.1	19.3	-9.3	34.5		12
74927	ISLIP RR 13	1	ISLIP(RR) $	377	7.5	0.8	6.2	0.0	9.6 ***		12
74930	HEMP RR 13	1	HEMPSTEAD ($	249	68.0	20.3	37.0	-17	68.8 ***		12
74931	BABYLNRR 13	1	BABYLON (RR$	214	15.1	6.2	11.0	0.0	15.1 ***		12
74945	NISSQUOG 13	1	SUNY STONY $	.	38.5	-1.3	21.0	-14	38.5		12
75032	BARRETT 138	1	OCEANSIDE ($	370	4.3	0.0	0.0	0.0	3.0 ***		12
75130	HUNT RR 13	1	HUNTINGTON $	367	19.0	-1.6	15.0	-5.0	20.0 ***		12
75165	GRT RVER 69	1	HUBBARD $	260	3.0	0.0	0.0	0.0	0.0 ***		12
75367	LONGBCH 34	1	LONG BEACH $	284	2.6	0.0	0.0	0.0	2.8 ***		12
			SUBTOTAL	------	-----	-----	-----				

					254.0	38.4	138.3	-57.9		

NYSEG
****

BUS	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK ZONE
76162	LANDFIL$ 34	1	LAN LANFIL1$	446	2.8	0.0	0.0	0.0	3.3 ***	5
76162	LANDFIL$ 34	2	LAN LANFIL2$	446	2.8	0.0	0.0	0.0	3.3 ***	5
76296	LEA 1G $ 13	1	LOCK LEA 1G$	480	41.4	-8.0	25.5	-8.0	41.4	5
76297	LEA 2G $ 13	2	LOCK LEA 2G$	480	41.4	-8.0	25.5	-8.0	41.4	5
76298	LEA 3G $ 13	3	LOCK LEA 3G$	480	41.4	-8.0	25.5	-8.0	41.4	5
76299	LEA 4S $ 13	4	LOCK LEA 4S$	480	49.5	-19	24.0	-19	50.5 ***	5
*****										
75533	AUB HY $ 115	1	AUB HY MILL$	330	0.4	0.0	0.0	0.0	0.4	6
75533	AUB HY $ 115	2	AUB HY NORT$	534	0.9	0.0	0.0	0.0	1.0 ***	6
75533	AUB HY $ 115	3	YANKEE AURE$	.	0.4	0.0	0.0	0.0	0.4	6
75533	AUB HY $ 115	4	YANKEE AURE$	.	0.4	0.0	0.0	0.0	0.7 ***	6
75534	AUB HSC$ 34	1	AUB HI SCHL$	.	0.3	0.0	0.0	0.0	0.3	6
75890	DIKE HY$ 34	1	DIKE 1$	.	1.1	0.0	0.0	0.0	1.1	6
75894	GARLOCK$ 34	1	GARLOCKS $	.	1.5	0.0	0.0	0.0	1.5	6
75895	NEWARK $ 34	1	NEWARK FLOR$	.	1.0	0.0	0.0	0.0	1.0	6
75895	NEWARK $ 34	2	NEW WAY HY $	.	1.0	0.0	0.0	0.0	1.0	6
75896	HI ACRE$ 34	1	HIGH ACRES $	459	1.6	0.0	0.0	0.0	2.4 ***	6
75962	SEN ME2$ 34	1	SENECA MEA2$	.	2.0	0.0	0.0	0.0	2.0	6
76043	INDEC S$ 13	1	INDECK-S GT$	432	39.0	2.8	20.0	-5.5	41.9 ***	6
76043	INDEC S$ 13	2	INDECK-S ST$	432	16.0	1.2	8.1	-3.8	17.3 ***	6
76049	CORNEL $ 115	1	CORNELL-HYD$	.	1.4	0.0	0.0	0.0	2.0 ***	6
76049	CORNEL $ 115	2	CORNELL-COA$	.	6.9	0.0	0.0	0.0	9.1 ***	6
76050	FING LK$ 34	1	FINGER LAKE$	581	0.1	0.0	0.0	0.0	0.2 ***	6
*****										
76207	JEFSNVL$ 115	1	JEFERSONVIL$	392	0.1	0.0	0.0	0.0	0.1 ***	7
76317	GOODYR $ 46	1	GOODYEAR LK$	229	1.5	0.0	0.0	0.0	1.5 ***	7
*****										
76258	WALD HY$ 13	1	WALDEN HYD $	347	3.7	0.0	0.0	0.0	3.7 ***	8
*****										
76411	ALICE F$ 46	1	ALICE FALL1$	447	1.4	0.0	0.0	0.0	1.6 ***	19
76411	ALICE F$ 46	2	ALICE FALL2$	447	0.7	0.0	0.0	0.0	0.7 ***	19
76478	LOW SAR$ 46	1	LOWER SARAN$	448	6.7	0.0	0.0	0.0	5.7 ***	19
76479	CHATGY $ 34	1	CHASM HYDRO$	336	1.6	0.0	0.0	0.0	1.6	19
76479	CHATGY $ 34	2	TRITON $	414	1.8	0.0	0.0	0.0	1.8	19
76479	CHATGY $ 34	3	KES-CHATGY $	449	16.5	0.0	0.0	0.0	17.8 ***	19
76481	NOEND1G$ 13	1	FALCN SB 1G$	486	79.8	0.3	36.0	-12	89.9 ***	19
76482	NOEND2G$ 13	2	FALCN SB 2G$	486	79.8	0.3	36.0	-12	89.9 ***	19
76483	NOEND3S$ 13	3	FALCN SB 3S$	486	79.8	0.3	56.5	-39	89.9 ***	19
*****										
75582	COWEE 1$ 115	1	COWEE 1$	400	0.5	0.0	0.0	0.0	0.5	21
*****										
75768	CROTON $ 115	1	CROTON FALL$	417	0.2	0.0	0.0	0.0	0.2 ***	30
75769	PAT HOU$ 46	1	PATER HOUSE$	.	1.5	0.0	0.0	0.0	1.5	30
				SUBTOTAL	528.9	-38.1	257	-114.8		

NMPC
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BUS	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK ZONE
76526	ELLICTVL 115	1	ELLICOTVILL$	519	3.8	1.3	1.3	-1.3	3.5 ***	1
76526	ELLICTVL 115	1	ELLICOTVILL$	519	3.8	1.3	1.3	-1.3	0.7 ***	1
76548	INDEK-OL 115	1	INDECK-OL 1$	576	38.0	12.5	12.5	-13	38.5 ***	1
76548	INDEK-OL 115	1	INDECK-OL 1$	576	38.0	12.5	12.5	-13	41.5 ***	1
76548	INDEK-OL 115	2	INDECK-OL 2$	.	41.0	13.5	13.5	-14	41.0	1
76616	SENECAJC 34	1	BIG WHEEL M$	.	0.4	0.0	0.0	0.0	0.4	1
76621	SRANDOLP 34	1	GLOVERS MIL$	754	0.2	0.1	0.1	-0.1	0.2	1
76627	WHITSVLE 34	1	EBENEZER OI$	.	0.3	0.0	0.0	0.0	0.3	1
76643	NORCON1 13	1	NORCON(FALC$	606	32.5	1.2	10.7	-11	32.4 ***	1
76644	NORCON2 13	2	NORCON(FALC$	606	32.6	1.9	10.0	-10	32.4 ***	1
76644	NORCON2 13	3	NORCON(FALC$	606	14.2	0.8	5.4	-5.4	14.0 ***	1
76650	WOLEAN55 13	1	HYDROCARBON$	681	2.0	0.5	0.5	-0.5	1.6 ***	1
76650	WOLEAN55 13	2	CAL BAN POW$	.	0.5	0.1	0.1	-0.1	0.2 ***	1
76656	DUPONT 115	1	INDECK/YERK$	485	56.0	18.4	18.4	-18	51.1 ***	1
76707	BETHENRG 13	1	BETH ENERGY$	550	25.0	8.2	8.2	-8.2	23.5 ***	1
76764	GENMLS61 34	1	GENERAL MIL$	487	3.5	1.2	1.2	-1.2	4.0 ***	1
76802	OXBOWNUG 115	1	OXBOW/OCCID$	498	49.0	15.5	16.1	-16	56.5 ***	1
76807	AM BRASS 115	1	AMERICAN BR$	545	62.0	20.4	20.4	-20	63.5 ***	1
77121	SENECAP 115	1	SENECA PWR $	587	42.9	14.1	14.1	-14	42.1 ***	1
77121	SENECAP 115	1	SENECA PWR $	587	42.9	14.1	14.1	-14	16.7 ***	1
77121	SENECAP 115	2	SENECA PWR $	.	17.1	5.6	5.6	-5.6	17.0 ***	1
77204	BURT 34	1	BURT DAM $	460	0.5	0.0	0.0	0.0	0.3 ***	1
77277	W MANAGE 34	1	MONROE-LIVI$	481	3.2	0.0	0.0	0.0	6.0 ***	1
77794	UDG-184 115	1	UDG/NIAGARA$	515	52.0	-17	17.1	-17	53.0 ***	1

*****												
77414	FULTN_CG	13	1	NESTLES $	523	47.0	6.8	22.3	-8.6	46.0	***	2
77450	GERES LK	115	1	SALT CITY E$	452	79.5	13.0	13.0	-13	80.0	***	2
77450	GERES LK	115	2	ENRGY INIT-$	507	79.5	13.0	13.0	-13	79.5		2
77454	HARRIS	115	1	ENERGY TACT$	511	1.0	0.0	0.0	0.0	0.9	***	2
77480	PEAT-7	115	1	NOTTINGHAM $	554	0.2	0.0	0.0	0.0	0.1	***	2
77495	TEMPLE	115	1	GAS ALTERNA$	449	79.9	0.0	0.0	0.0	79.3	***	2
77550	HIGH DAM	46	4	HIGH DAM 4 $	805	3.0	-0.7	1.6	-1.6	6.2	***	2
77567	BALDW1T9	34	3	SENECA LIMI$	379	0.1	0.0	0.0	0.0	0.7	***	2
77583	BRIST HL	34	1	OSWEGO COUN$	358	3.6	0.0	0.0	0.0	0.9	***	2
77687	NPT GEN	34	1	SYRACUSE PO$	535	5.0	1.6	1.6	-1.6	6.0	***	2
77812	PHOENIX	34	1	LLEC PHOENI$	618	2.7	0.0	0.0	0.0	1.8	***	2
77954	OCWE GEN	13	1	ONONDAGA CN$	320	36.9	8.5	22.9	-12	31.8	***	2
77956	HMGENBUS	13	1	INDECK - OS$	547	50.4	5.2	23.8	-9.4	54.1	***	2
77967	SITH-G3	18	3	SITHE GT 3 $	729	156.0	78.8	127	-80	170.0	***	2
77968	SITH-G4	18	4	SITHE GT 4 $	729	156.0	78.8	127	-80	170.0	***	2
77978	ESYR GT1	13	1	US GEN (OLD$	588	36.1	14.6	27.0	-8.0	98.5	***	2
77978	ESYR GT1	13	1	US GEN (OLD$	588	36.1	14.6	27.0	-8.0	34.1	***	2
77978	ESYR GT1	13	1	US GEN (OLD$	588	36.1	14.6	27.0	-8.0	16.8	***	2
77979	ESYR GT2	13	2	US GEN (OLD$	.	36.1	17.1	27.0	-8.0	36.1		2
77980	ESYR ST1	13	3	US GEN (OLD$	.	17.8	9.0	13.1	-4.1	17.8		2
*****												
78007	N.O-BRG	115	1	OGDENSBURG1$	529	38.3	-10	11.9	-12	40.4	***	3
78007	N.O-BRG	115	1	OGDENSBURG1$	529	38.3	-10	11.9	-12	20.2	***	3
78007	N.O-BRG	115	1	OGDENSBURG1$	529	38.3	-10	11.9	-12	19.2	***	3
78007	N.O-BRG	115	2	OGDENSBURG2$	.	19.9	-5.2	6.2	-6.2	20.0	***	3
78007	N.O-BRG	115	3	OGDENSBURG3$	.	20.8	-5.5	6.5	-6.5	19.0	***	3
78009	BRNS FLS	115	1	CRANBERRY L$	495	0.6	0.0	0.0	0.0	0.4	***	3
78011	BU+LY+MO	115	1	HARZA MOOSE$	373	11.8	1.7	1.7	-1.7	12.4	***	3
78011	BU+LY+MO	115	2	GEORGIA PAC$	202	7.6	1.1	1.1	-1.1	7.6		3
78011	BU+LY+MO	115	3	LYONSDALE A$	297	3.0	0.4	0.4	-0.4	2.0	***	3
78011	BU+LY+MO	115	4	BURROWS-LYO$	514	19.0	2.7	2.7	-2.7	20.0	***	3
78012	CLIMAX	115	1	P & N ENERG$	510	8.3	-0.7	2.5	-2.5	9.6	***	3
78012	CLIMAX	115	2	KAMINE(CART$	503	56.0	13.2	17.6	-18	62.4	***	3
78013	COFFEEN	115	1	TRAFALGAR A$	365	0.5	0.0	0.0	0.0	0.0	***	3
78022	FT. DRUM	115	1	FORT DRUM $	442	49.9	0.0	0.0	0.0	52.8	***	3
78023	GLEN PRK	115	1	GLEN PARK A$	337	32.7	0.0	11.0	0.0	36.9	***	3
78036	MOSH-SUN	115	1	STILLWATER $	369	2.5	0.0	0.0	0.0	1.6	***	3
78037	MRA-CANT	115	1	MRA CANTON $	528	49.0	-15	15.3	-15	0.0	***	3
78038	N CARTHG	115	1	LLE - DIANA$	263	2.5	0.0	0.0	0.0	1.1	***	3
78038	N CARTHG	115	2	KINGS FALLS$	492	2.0	0.0	0.0	0.0	0.3	***	3
78044	OGDENSBG	115	1	OGDENSBURG $	506	3.1	0.0	0.0	0.0	1.7	***	3
78044	OGDENSBG	115	2	BRUCE B. NI$	.	0.1	0.0	0.0	0.0	0.0	***	3
78044	OGDENSBG	115	3	ASE ENRGY(O$	.	2.0	0.0	0.0	0.0	2.0		3
78046	POTDM PA	115	1	AD.HY POTSD$	277	5.6	0.0	0.0	0.0	5.6		3
78047	PYRITE-6	115	1	PYRITES ASS$	362	7.2	0.0	0.0	0.0	7.3	***	3
78115	UNION	46	1	UNION FALLS$	429	2.6	0.0	0.0	0.0	2.4	***	3
78223	CAR PAPE	23	1	CARTHAGE PA$	250	0.5	0.1	0.1	0.1	0.0	***	3
78223	CAR PAPE	23	2	BESHA LONG $	575	3.5	0.5	0.5	0.5	1.3	***	3
78228	CATALDO	23	1	EMPIRE HYDR$	315	1.0	0.0	0.0	0.0	0.7	***	3
78241	COPENGEN	23	1	COPENHAGEN $	845	0.1	0.1	0.1	0.1	1.0	***	3
78241	COPENGEN	23	1	COPENHAGEN $	845	0.1	0.1	0.1	0.1	1.7	***	3
78241	COPENGEN	23	2	COPENHAGN2 $	.	0.1	0.1	0.1	0.1	1.7	***	3
78248	DENLEY	23	1	BLACK RIV 2$	342	1.6	0.0	0.0	0.0	0.1	***	3
78265	FOWLER	23	1	FOWLER $	196	0.1	0.0	0.0	0.0	0.8	***	3
78265	FOWLER	23	2	H.D.G.(FOWL$	.	0.2	0.0	0.0	0.0	1.5	***	3
78269	GLENFIEL	23	1	OTTER CREEK$	417	0.5	0.0	0.0	0.0	0.3	***	3
78270	GOUVERNE	23	1	VILL. GOUVE$	236	0.2	0.0	0.0	0.0	0.7	***	3
78272	H.D.G.#3	23	1	H.D.G. (#3 $	845	0.1	0.0	0.0	0.0	1.7	***	3
78273	H.D.G.#6	23	1	H.D.G.(HAIL$	845	0.2	0.0	0.0	0.0	0.7	***	3
78275	HAILSBOR	23	1	HDG (HAILSB$	845	0.3	0.0	0.0	0.0	2.2	***	3
78281	HOLOW DM	23	1	HOLLOW DAM $	435	1.0	0.0	0.0	0.0	0.7	***	3
78282	INDIAN F	23	1	INDIAN FALL$	399	0.7	0.0	0.0	0.0	0.2	***	3
78303	NATUR DM	23	1	JAMES RIVER$	294	1.0	0.0	0.0	0.0	0.0	***	3
78309	P LEYD H	23	1	BLACK RIV 3$	343	2.2	0.0	0.0	0.0	2.4	***	3
78310	PHILA HY	23	1	HARZA PHILA$	370	3.4	0.0	0.0	0.0	1.3	***	3
78321	ROCK ISL	23	1	BLACK RIV 1$	341	1.9	0.0	0.0	0.0	0.9	***	3
78326	SANDY HO	23	1	SANDY HOLLO$	383	0.6	0.0	0.0	0.0	0.3	***	3
78334	TALCVILE	23	1	HDI ASSOCIA$	.	0.9	0.0	0.0	0.0	0.9		3
78337	WAT.MUNI	23	1	CITY OF WAT$	662	6.8	1.5	1.5	1.5	4.8	***	3
78403	LAWRENCE	13	1	VILL. OF PO$	395	0.8	0.0	0.0	0.0	3.1	***	3
78403	LAWRENCE	13	2	ADIR. SISSO$	418	2.2	0.0	0.0	0.0	2.5	***	3
78414	MILL ST	4	1	FILTRATION $	207	0.5	0.3	0.3	0.3	0.9	***	3
78414	MILL ST	4	2	BEEBEE IS W$	193	0.1	0.1	0.1	0.1	9.1	***	3
78414	MILL ST	4	3	BEEBEE IS. $	.	3.2	1.7	1.7	1.7	6.4	***	3
78415	WESTENDH	4	1	SNC-CROWN Z$	377	1.7	0.0	0.0	0.0	3.1	***	3
78418	EMERYVLE	2	1	HAMPSHIRE P$	428	0.2	0.0	0.0	0.0	3.0	***	3
78419	FRONTENA	2	1	H.D.G.(DEXT$	845	7.3	2.0	2.0	2.0	1.6	***	3
78420	THER HYD	2	1	H.D.G. (THE$	845	1.3	0.3	0.3	0.3	1.0	***	3
78421	BEAVR FA	2	1	BEAVER FALL$	360	1.5	0.0	0.0	0.0	1.4	***	3
78421	BEAVR FA	2	2	BEAVER FALL$	361	1.0	0.0	0.0	0.0	0.9	***	3
78425	DIAM ISL	2	1	HDG (DIAMON$	845	1.2	0.3	0.3	0.3	1.1	***	3
78429	FRANK HY	2	3	FRANKLIN HY$	675	0.3	0.0	0.2	-0.2	0.5	***	3
78437	TANNERYH	0	1	TANNERY ISL$	380	0.8	0.0	0.0	0.0	1.3	***	3
78480	LEHIGH	115	1	HARDEN FURN$	242	0.7	0.0	0.0	0.0	1.5	***	3
78483	ONEIDA	115	1	CURTAIN BRO$	.	0.1	0.0	0.0	0.0	0.1		3
78483	ONEIDA	115	2	STERLING PO$	573	38.5	12.0	12.0	-12	41.2	***	3

78483	ONEIDA	115	2	STERLING PO$	573	38.5	12.0	12.0	-12	15.9	***	3
78483	ONEIDA	115	3	STERLING PO$	.	15.0	4.8	4.8	-4.8	15.0		3
78487	ROME	115	1	ONEIDA COUN$	.	2.3	0.0	0.0	0.0	2.3		3
78490	SCHUYLER	115	1	WASTE MANAG$	642	1.6	0.0	0.0	0.0	1.6		3
78523	BUROWS P	46	1	BURRWS-LITT$	422	4.3	0.0	0.0	0.0	4.1	***	3
78531	DOLGEVIL	46	1	DANIEL GREE$	218	0.5	0.3	0.3	-0.3	0.0	***	3
78531	DOLGEVIL	46	2	LLE - DOLGE$	262	5.0	1.7	1.7	-1.7	7.1	***	3
78539	FORSTPHY	46	1	FORRESTPORT$	496	2.9	0.5	2.0	-2.0	1.5	***	3
78547	HERKM HY	46	1	TRAFALGR HE$	494	1.6	0.5	0.5	-0.5	0.7	***	3
78554	KAYUTAHY	46	1	TRAFALGAR K$	366	0.5	0.0	0.0	0.0	0.3	***	3
78558	LTLFLSHY	46	1	LITTLE FALL$	307	8.6	1.5	1.5	-1.0	12.6	***	3
78571	NEWPRTHY	46	1	NEWPORT HYD$	484	1.5	0.0	0.0	0.0	1.0	***	3
78592	TRENTON	46	1	CITY OF UTI$	670	0.3	0.0	0.0	0.0	0.2	***	3
78592	TRENTON	46	2	CITY OF UTI$	669	0.2	0.0	0.0	0.0	0.1	***	3
*****												
78731	JMC1+7TP	115	1	JMC-SELKIRK$	524	79.0	25.0	25.0	-25	84.9	***	4
78746	CETI	115	1	CETI FORT O$	509	40.7	11.7	11.7	-12	40.2	***	4
78746	CETI	115	2	CETI FORT O$	509	24.3	7.0	7.0	-7.0	24.5	***	4
78773	PBUSH W	115	1	CITY - WATE$	393	1.2	0.0	0.0	0.0	0.5	***	4
78794	SYCA-16	115	1	POESTENKILL$	.	0.1	0.0	0.0	0.0	0.1		4
78802	WOLF RD	115	1	TURBOSYSTEM$	.	3.0	0.0	0.0	0.0	3.0		4
78825	AVE-A+ST	34	1	ALBANY JEWI$	.	0.1	0.0	0.0	0.0	0.1		4
78835	CIBRO	34	1	CIBRO PETRO$	620	3.5	0.0	0.0	0.0	0.0	***	4
78866	LIBERTY	34	1	MT. IDA ASS$	299	2.9	0.0	0.0	0.0	1.1	***	4
78877	NORT+NSH	34	1	ALBANY COGN$	521	25.0	7.8	7.8	-7.8	26.5	***	4
78889	RENSSELA	34	1	MILL CREEK $	403	0.1	0.0	0.0	0.0	0.0	***	4
78906	ST+RR+LB	34	2	CHITTENDEN $	.	0.5	0.0	0.0	0.0	0.4	***	4
78917	UNIONVIL	34	1	ALBANY HYDR$	434	0.1	0.0	0.0	0.0	0.1		4
78919	VAL+GYP	34	1	VALATIE HYD$	679	0.3	0.0	0.0	0.0	0.1	***	4
78925	WF+AH+MP	34	1	4TH BRANCH $	497	3.3	0.0	0.0	0.0	1.5	***	4
78925	WF+AH+MP	34	2	N.Y. STATE $	419	10.3	0.0	0.0	0.0	10.4	***	4
78959	LGE-GT	13	1	RENNSLR GT$	540	44.1	-14	13.8	-14	39.4	***	4
78960	LGE-ST	13	1	RENNSLR ST$	540	34.9	-9.3	10.9	-11	40.4	***	4
79115	BATKILL	115	1	UPPER GREEN$	410	0.8	0.0	0.0	0.0	0.3	***	4
79115	BATKILL	115	2	MIDDLE GREE$	411	0.4	0.0	0.0	0.0	0.4		4
79135	HOOSICK	115	1	HOOSICK FAL$	516	0.8	0.0	0.0	0.0	0.5	***	4
79137	IP CORIN	115	1	I.P. CORINT$	338	29.0	15.0	15.0	0.0	29.5	***	4
79137	IP CORIN	115	2	I.P. CORINT$	338	29.0	15.0	15.0	0.0	29.5	***	4
79143	MOHICAN	115	2	KAMINE-S GL$	502	53.4	10.3	10.3	-10	59.9	***	4
79143	MOHICAN	115	3	ADIRON. RES$	445	9.8	1.9	1.9	-1.9	12.5	***	4
79143	MOHICAN	115	4	FINCH PRUY3$	.	6.1	1.2	1.2	-1.2	6.9	***	4
79143	MOHICAN	115	5	FINCH PRUY $	.	17.8	3.4	3.4	-3.4	20.0	***	4
79143	MOHICAN	115	6	FINCH PRUY1$	798	1.9	0.4	0.4	-0.4	2.2	***	4
79148	PORT HEN	115	1	RIV.RAT GLA$	425	0.5	0.0	0.0	0.0	0.6	***	4
79160	TICN+OTN	115	1	LACHUTE LOW$	421	3.5	0.0	0.0	0.0	3.6	***	4
79160	TICN+OTN	115	2	LACHUTE UPP$	420	4.7	0.0	0.0	0.0	4.8	***	4
79167	WHITEHAL	115	1	CHAMPLAIN S$	672	0.8	0.0	0.0	0.0	0.3	***	4
79214	BATKL+HV	34	1	HOLLINGS UP$	857	0.4	0.0	0.0	0.0	1.1	***	4
79214	BATKL+HV	34	2	HOLLINGS VL$	797	0.5	0.0	0.0	0.0	1.2	***	4
79214	BATKL+HV	34	2	HOLLINGS VL$	858	0.5	0.0	0.0	0.0	1.1	***	4
79214	BATKL+HV	34	3	FORT MILLER$	367	2.1	0.0	0.0	0.0	5.0	***	4
79214	BATKL+HV	34	4	AD HYR@N.UM$	.	4.2	0.0	0.0	0.0	10.0	***	4
79223	CM+UN+HV	34	1	HOLLINGS #3$	.	1.2	0.0	0.0	0.0	1.2		4
79229	FDR DAM	34	1	MOREAU MFG $	206	5.0	0.0	0.0	0.0	1.8	***	4
79238	JOHNSVIL	34	2	VALLEY FALL$	368	2.8	0.0	0.0	0.0	1.2	***	4
79242	AHDC-MOR	34	1	ADIR.HY HUD$	862	36.0	0.0	0.0	0.0	42.0	***	4
79244	MECHANIC	34	1	MECHANICVIL$	633	3.0	0.0	0.0	0.0	3.0		4
79245	MIDFL+ST	34	1	STEVENS &TH$	483	10.5	0.0	0.0	0.0	5.6	***	4
79245	MIDFL+ST	34	2	MIDDLE FALL$	548	2.0	0.0	0.0	0.0	1.4	***	4
79248	PA+CP+RF	34	1	COTTRELL PA$	477	0.6	0.0	0.0	0.0	0.1	***	4
79251	S.GLNGEN	34	1	ADIR.HY SGL$	863	13.5	0.0	0.0	0.0	14.8	***	4
79254	SCHUVL	34	2	SNC VICTORY$	453	1.2	0.0	0.0	0.0	0.8	***	4
79256	SCOKE+RR	34	1	L.LAKE STIL$	617	3.0	0.0	0.0	0.0	0.9	***	4
79267	WRNS+SWT	34	1	SCHROON RIV$	416	2.8	0.0	0.0	0.0	0.5	***	4
79274	LKPL+CHL	23	1	CHRISTINE F$	374	0.8	0.0	0.0	0.0	0.6	***	4
79282	WELLS	23	1	TOWN OF WEL$	458	0.7	0.0	0.0	0.0	0.4	***	4
79289	INDECK-C	13	1	INDECK-CORI$	324	89.3	39.0	55.3	-36	53.6	***	4
79289	INDECK-C	13	2	INDECK-CORI$	324	59.9	26.2	37.1	-24	80.4	***	4
*****												
78000	ALCOA-NM	115	1	MASSENA ENR$	574	79.0	24.7	24.7	-25	79.8	***	31
78033	MALONE	115	1	BELLOWS TOW$	396	0.4	0.0	0.0	0.0	0.2	***	31
*****												
79655	ILION	115	1	INDECK-ILIO$	624	54.7	17.1	17.1	-17	56.3	***	293

SUBTOTAL	------	-----	-----	-----
WESTERN	561.4	126.0	183.0	-182.9
CENTRAL	1589.8	319.2	657.1	-414.2
EASTERN	671.9	140.7	215.7	-153.5
TOTAL NMPC	3241.7	761.9	1265.7	-900.7

ORANGE & ROCK

****

BUS	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK ZONE
79349	PEARL RV 69	1	LEDERLE $	145	18.0	0.0	0.0	0.0	18.0	11
79354	SHOEM 69	1	MIDDLE.T LF$	140	3.0	0.0	0.0	0.0	3.0	11
79354	SHOEM 69	2	BUTTERMILK $	131	0.1	0.0	0.0	0.0	0.1 ***	11
79354	SHOEM 69	3	LANDFILL G.$	142	2.5	0.0	0.0	0.0	2.5	11
79356	SO.MAHWA 69	1	INTL. CROSS$	139	3.0	0.0	0.0	0.0	3.0	11
				SUBTOTAL	26.6	0.0	0.0	0.0		

NYPA
****

BUS	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK ZONE
79704	HOOKRN85 115	1	AMER. REF 1$	795	19.0	11.2	11.2	-6.6	18.9 ***	13
79706	HOOKRN86 115	1	AMER. REF 2$	795	19.0	11.2	11.2	-6.6	18.9 ***	13
*****										
74512	PARK TR1 138	1	BRONX ZOO $	.	2.0	0.0	0.0	0.0	2.0	15
74655	BRNSVL#2 27	1	ATLAS BIO E$	.	2.0	0.0	0.0	0.0	2.0	15
74724	JFK G1 13	1	JFK G1 $	.	36.0	18.3	26.0	-14	40.0 ***	15
74725	JFK G2 13	1	JFK G2 $	.	36.0	18.3	26.0	-14	40.0 ***	15
74726	JFK G3 13	1	JFK G3 $	.	18.0	10.1	12.0	-7.0	20.0 ***	15
				SUBTOTAL	132.0	69.1	86.3	-48.2		

ROCHESTER
****

BUS	BUS NAME	UNIT	IPP IDENT.	CONTRACT	PGEN	QGEN	QMAX	QMIN	RATING	DATBANK ZONE
79995	KAMIN 13 13	1	KAMINE GT$	101	35.8	1.4	11.7	-8.5	44.0 ***	9
79995	KAMIN 13 13	2	KAMINE ST$	101	19.2	0.8	6.3	-4.5	25.0 ***	9
				SUBTOTAL	55.0	2.2	18.0	-13.0		
			TOTAL NYPP IPP GENERATION		5885.4	1489.4	2783.1	-1618		

APPENDIX K

SUMMARY OF EXISTING STABILITY LIMITS

APPENDIX K
NYPP STABILITY LIMITS

				LIMIT	*REPORT*	*DATE*
TOTAL-EAST						
SEASONAL LIMIT				6500	TE-2	1995
5018 BRANCHBURG-RAMAPO 500 KV O/S				6400	TE-3	3/95
5018 BRANCHBURG-RAMAPO 500 KV O/S WITH ANY SVC O/S				6300	TE-3	3/95
UPNY-CONED						
SEASONAL LIMIT				5100	TE-1	1988
Y88 LADENTOWN-BUCHANAN 345 KV O/S				4150	UC-2	1/93
Y94 RAMAPO-BUCHANAN N. 345 KV O/S				4150	UC-2	1/93
RFK-305 ROSETON-E. FISHKILL 345 KV O/S				4100	UC-2	1/93
5018 BRANCHBURG-RAMAPO 500 KV O/S				4000	UC-1	1/93
CENTRAL-EAST						
SEASONAL LIMIT WITH 3 OSWEGO & 6 SITHE UNITS BOTH SVC'S				3100	CE-7	1995
4 LAFAYETTE-OAKDALE 345 KV O/S				2900	CE-8	6/95
32 OAKDALE-FRASER 345 KV O/S				3050	CE-8	6/95
	SVC STATUS					
OSWEGO COMPLEX PENALTY	***MIN SITHE UNITS I/S***	***ALL I/S***	***ANY O/S***	***BOTH O/S***		
4 OF 5 UNITS I/S	6 0	0 300	100 400	650 650	CE-7 CE-6	2/95 10/94
3 OF 5 UNITS I/S	3 0	0 300	150 300	300 450	CE-8 CE-8	1/30/96
2 OF 5 UNITS I/S	3 0	0 300	150 300	300 450	CE-9 CE-9	4/17/96
1 OF 5 UNITS I/S	3 0	300 600	300 600	300 600	CE-10 CE-10	4/17/96
0 OF 5 UNITS I/S	5 4 3 0	600 700 800 1200	600 700 800 1200	600 700 800 1200	CE-11	6/97
MOSES GEN REJECTION O/S: LESS 150MW W/ANY SVC O/S OR 300MW W/BOTH SVC'S O/S						

2 CHAT HVDC POLES O/S OR 1 CHAT HVDC POLE I/S <100 MW OR 2 CHAT HVDC POLES <150 MW LIMIT OSWEGO COMPLEX TO 3200 MW FOR 4 UNITS I/S & SITHE O/S LIMIT OSWEGO COMPLEX TO 3500 MW FOR 5 UNITS I/S & SITHE O/S OR 4600 FOR 5 UNITS I/S & SITHE I/S		CE-3	9/20/93
NEW SCOTLAND 77 OR 99 BUS O/S	2050	CE-1	5/10/89
14 EDIC-NEW SCOTLAND 345 KV O/S	2050	CE-1	5/10/89
UNS-18 MARCY-NEW SCOTLAND 345 KV O/S	2050	CE-1	5/10/89
MSU-1 MASSENA-MARCY 765 KV O/S	2000	CE-1	7/12/90
SUBTRACT 350 FOR ANY SVC O/S FOR ABOVE LIMITS			
MOSES-SOUTH			
SEASONAL LIMIT WITH 2 HVDC POLES I/S (MAX CHAT-MASSENA = 2370)	2900	MS-6	5/6/93
R8105 ALCOA BUS TIE 115 KV O/S	2600	MS-1	1/23/91
3 CHAT BANKS 765/120 KV I/S, (MAX CHAT-MASSENA = 1800)	2500		
ONE MOSES-ADIRONDACK-PORTER 230 KV CKT O/S	2450	MS-2	1/9/88
4 CHAT 765/120 kV BANKS I/S - SPLIT BUS & 1 HVDC POLE I/S (MAX CHAT - MASSENA = 1870 MW)	2600	MS-7	3/15/94
2 CHAT 765/120 KV BANKS I/S & 1 HVDC POLE I/S (MAX CHAT-MASSENA = 1650 MW)	2350	MS-5	1/14/94
3 CHAT 765/120 KV BANKS I/S & 1 HVDC POLE I/S (MAX CHAT-MASSENA = 1400)	2150	MS-5	1/14/94
2 HVDC POLES O/S (MAX CHAT-MASSENA = 1170)	2000	MS-4	1990
MSU-1 I/S WITH NO DIRECT TRANSFER TRIP FOR GEN REJECTION AT QUEBEC (MAX CHAT-MASSENA = 650)	1100	MS-2	11/29/84
MSU-1 MASSENA-MARCY 765KV O/S (MAX CHAT-MASSENA= 475)	675		2/9/84
MSU-1 MASSENA-MARCY 765 KV AND ONE MOSES-ADIRONDACK-PORTER 230 KV O/S	500		
MOSES-NORTH			
SEASONAL LIMIT	1600	MN-1	12/1/89
ONE OR TWO MOSES-ADIRONDACK-PORTER 230 KV CKTS O/S	1600	MN-2	2/10/90
MSU-1 MASSENA-MARCY 765 KV O/S	1100	MN-2	

WEST-CENTRAL			
SEASONAL LIMIT	2350	WC-1	9/18/89
NR-2 NIAGARA-ROCHESTER 345 KV OR SR-1 KINTIGH-ROCHESTER 345 KV O/S	2150	WC-2	10/14/91
DYSINGER-EAST			
SEASONAL LIMIT	2850	DE-1	7/27/92
67 STOLLE ROAD-MEYER 230 KV OR 68 MEYER-HILLSIDE 230 KV O/S	2650	DE-1	7/27/92
NR-2 NIAGARA - ROCHESTER 345 KV OR SR-1 KINTIGH - ROCHESTER 345 KV O/S	2500	DE-1	7/27/92
NYPP-PJM			
SEASONAL LIMIT	3600	NP-1	9/94
PJM-NYPP			
SEASONAL LIMIT	3600	NP-1	9/94
NYPP-OH			
SEASONAL LIMIT	2500	NOH-1	11/10/93
PA301 OR PA302 BECK-NIAGARA 345 KV O/S	2300	NOH-1	11/10/93
PA27 OR BP76 OR L33P OR L34P O/S	2300	NOH-1	11/10/93
PA301 & PA302 BECK-NIAGARA 345 KV O/S	500	NOH-3	1995
OH-NYPP			
SEASONAL LIMIT	2500	NOH-1	11/10/93
PA301 OR PA302 BECK-NIAGARA 345 KV O/S	2300	NOH-1	11/10/93
PA27 OR BP76 OR L33P OR L34P O/S	2300	NOH-1	11/10/93
PA301 & PA302 BECK-NIAGARA 345 KV O/S	800	NOH-3	1995
WESTERN NY EXPORT			
BOTH BECK-NIAGARA 345 KV CKTS O/S W/ NIAGARA GEN REJ I/S	1700	NOH-3	2/95
BOTH BECK-NIAGARA 345 KV CKTS O/S W/ NIAGARA GEN REJ O/S OR BOTH BECK-NIAGARA 345 KV CKTS O/S & PA27 CKT O/S OR ONE BECK-NIAGARA 345KV CKT O/S & PA27 & BP76 CKTS O/S	1100	NOH-3	2/95

NYPP-NE			
SEASONAL LIMIT	2200	NE-1	10/92-1996
2 NEW SCOTLAND - ALPS 345 KV O/S	2150	NE-1	10/92
329 FROST BRIDGE - SOUTHINGTON 345 KV O/S	2100	NE-1	10/92
312 BERKSHIRE - NORTHFIELD 345 KV O/S	1950	NE-1	10/92
352 LONG MOUNTAIN - FROST BRIDGE 345 KV O/S	1850	NE-1	10/92
393 ALPS - BERKSHIRE 345 KV O/S	1600	NE-1	10/92
393/312 ALPS-BERKSHIRE-NORTHFIELD 345 KV O/S	1500	NE-1	10/92
398 PLEASANT VALLEY - LONG MOUNTAIN 345 KV O/S	1150	NE-1	10/92
NE-NYPP			
THIS LIMIT IS SET BY NE, NYPP SPD MUST CALL FOR LIMIT		NE-1	10/92

NYPP STABILITY REPORT
SUMMARY

REPORT	REPORT TITLE	LAST REVISED DATE
TE-2	TOTAL EAST STABILITY ANALYSIS WITH SITHE GENERATION O/S	1/95
TE-3	NYPP TOTAL EAST ANALYSIS - A. HARGRAVE	3/95
UC-1	REVISED MAINTENANCE STABILITY TRANSFER LIMITS FOR BRANCH- RAMAPO O/S-NYPP	1/93
UC-2	RWW ANALYSIS - NYPP	1/93
CE-1	REVISED CENTRAL EAST STABILITY LIMITS BASED ON SVC RESERVE - K. TAMMAR TO C. COREY	5/10/89
CE-2	CENTRAL EAST STABILITY LIMIT W/ 765 KV SYSTEM O/S - NYPA TO K. TAMMAR	7/12/90
CE-3	CE & OSWEGO COMPLEX STABILITY LIMITS FOR THE CHATEAUGUAY HVDC O/S-NYPP/NYPA	9/20/93
CE-5	NYPP CE STABILITY LIMITS FOR LEEDS OR FRASER SVC 0/S	4/12/94
CE-6	CENTRAL EAST STABILITY ANALYSIS PRE-SITHE CONFIGURATION	10/94
CE-7	CENTRAL EAST STABILITY ANALYSIS POST SITHE CONFIGURATION	2/95
CE-8	CENTRAL EAST STABILITY LIMITS FOR THREE OSWEGO UNITS I/S	6/1/95
CE-9	CENTRAL EAST STABILITY LIMITS FOR TWO OSWEGO UNITS I/S	4/17/96
CE-10	CENTRAL EAST STABILITY LIMITS FOR ONE OSWEGO UNIT I/S	4/1796
CE-11	CENTRAL EAST STABILITY LIMITS FOR ZERO OSWEGO UNITS I/S	6/27/97
MS-2	RT GONZALES ANALYSIS	1/9/88
MS-3	RWW ANLAYSI - NYPP	11/29/84
MS-4	NYPA ANALYSIS W/2 HVDC POLES O/S	1990
MS-5	OPERATION OF THE MSC-7040 LINE W/1650 MW IMPORT FROM HYDRO QUEBEC & ONE HVDC CONVERTER I/S	12/20/93
MS-6	CHATEAUGUAY 2370MW IMPORT ANAYLSIS	5/6/93
MS-7	SPLIT 120 KV BUS OPERATION OF THE CHAT/BEAU COMPLEX W/ ONE HVDC CONVERTER O/S -NYPA	3/15/94
MN-1	RWW ANALYSIS 12/13/89 KT MEMO TO JEK	12/1/89
MN-2	JAM ANALYSIS #89030S MOSES-SOUTH W/MAP OS	2/10/90
WC-1	AWH ANALYSIS - NYPP	9/18/89

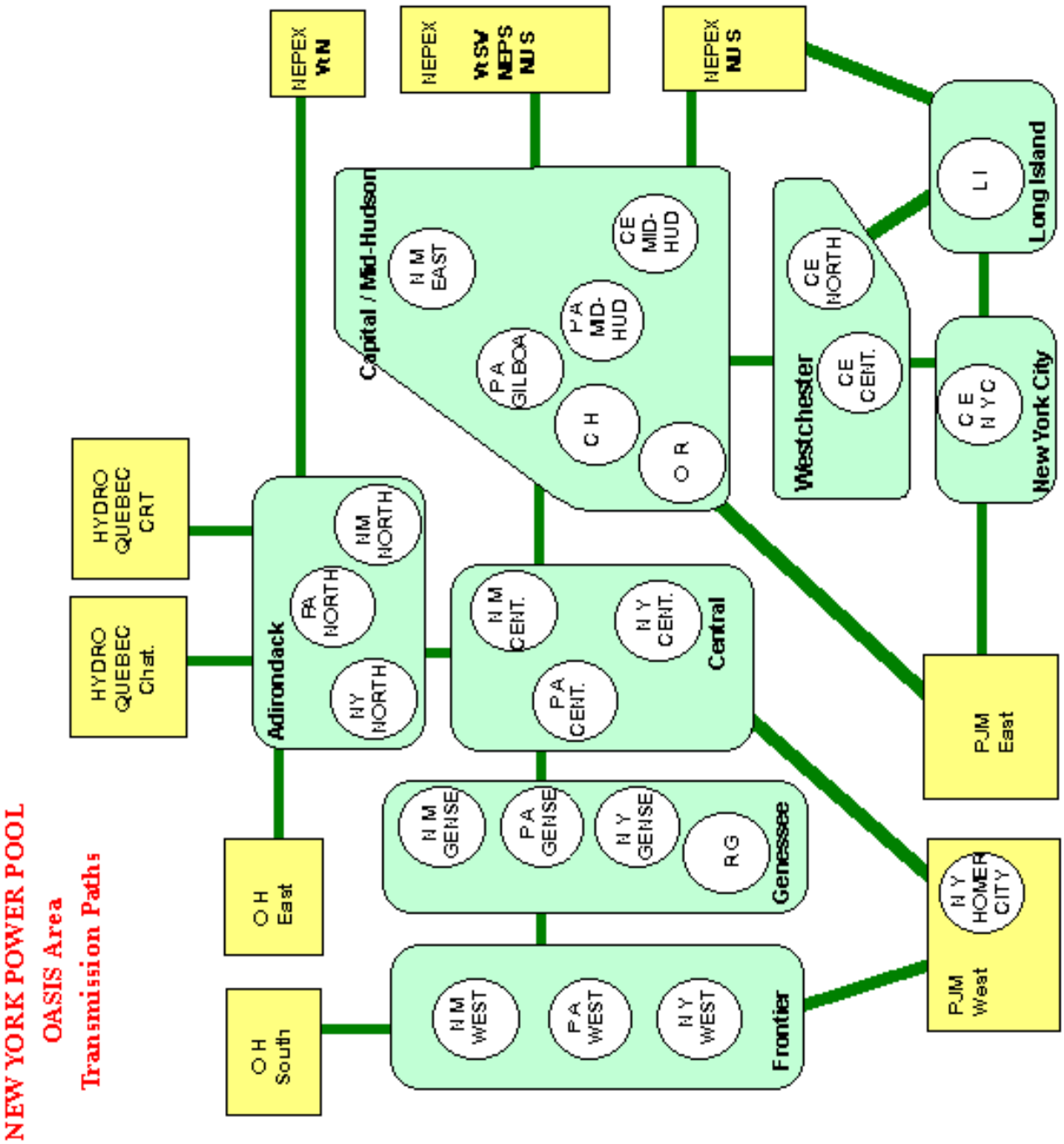
WC-2	WEST CENTRAL TRANSIENT STABILITY LIMITS FOR LINE OUTAGE CONDITIONS - NYPP	10/14/91
DE-1	DYSINGER EAST TRANSIENT STABILITY LIMITS FOR LINE OUTAGE CONDITIONS - NYPP	7/27/92
NOH-1	NYPP-OH DIRECT TIE STUDY OCTOBER 1993 SEE CA KING LETTER TO SOAS DATED 11/10/93	10/93
NOH-2	OH-NYPP TS STUDY GROUP ANALYSIS	1983-1984
NOH-3	NYPP STABILITY ANALYSIS WITH PA301/PA303 O/S	2/95
NE-1	1992-1996 NYPP-NEPOOL TRANSFER LIMIT STUDY	10/92
NP-1	NYPP-PJM STABILITY ANALYSIS ON THE DIRECT TIE TRANSFER CAPABILITY	9/94

APPENDIX L

NYPP OASIS PATHS
NON-RECALLABLE TTC'S

NYPP OASIS Transmission Paths
Non-Recallable TTC's

OASIS Path Name	NYPP Interface / Co.	TTC for all lines I/S forward	TTC for all lines I/S reverse
Adirondack-Central	MOSES SOUTH	2000	2000
Adirondack-ISO-NE Vt N	NYPP to NEPEX - PA	140	125
Capital/MidHudson-ISO-NE NU S.	NYPP to ISO-NE - (398)	700	700
Capital/MidHudson-ISO-NE NU S.	NYPP to ISO-NE / CH	28	28
Capital/MidHudson-ISO-NE VT/NE/NU	NYPP to ISO-NE (NM)	1200	1200
Capital/MidHudson-Westchester	UPNY-CONED	5100	5100
Central-Capital/MidHudson	TOTAL EAST (C-E)	4650	4650
Central-Capital/MidHudson	TOTAL EAST / NY	50	50
Frontier-Genesee	DYSINGER EAST	2850	2850
Genesee-Central	WEST CENTRAL	2350	2350
HQ-Adirondack	HQ to NYPP (PA)	2350	2350
HQ-Adirondack	HQ to NYPP (NM)	150	150
Long Island-ISO-NE NU S.	NYPP to ISO-NE (LI)	150	175
New York City-Long Island	CONED-LIPA	550	550
Ontario East-Adirondack	IEMO (Ontario) to NYPP (PA)	450	450
Ontario South-Frontier	IEMO (Ontario) to NYPP	1900	1900
PJM East-Capital/MidHudson	TOTAL EAST (5018/K3411)	1150	1150
PJM East-Capital/MidHudson	PJM to NYPP (J3410)	0	600
PJM East-New York City	TOTAL EAST (A/B/C)	400	400
PJM West-Central	PJM to NYPP C.	1300	1300
PJM West-Frontier	PJM to NYPP W.	1100	1100
Westchester-Long Island	CONED-LIPA (Y49)	625	625
Westchester-Long Island	CONED-LIPA Y50	600	600


NEW YORK POWER POOL
OASIS Area
Transmission Paths
NEPEX VtN
NEPEX VtSV MEPS NJS
NEPEX NJS
HYDRO QUEBEC CRT
HYDRO QUEBEC Chat.
Adirondack
NM NORTH
PA NORTH
NY NORTH
Capital / Mid-Hudson
NM EAST
PA GILBOA
PA MD-HUD
CE MID-HUD
C H
O R
Westchester
CE NORTH
CE CENT.
Long Island
LI
New York City
C E N Y C
Central
NM CENT.
PA CENT.
NY CENT.
Genessee
NM GENSE
PA GENSE
NY GENSE
RG
Frontier
NM WEST
PA WEST
NY WEST
O H East
O H South
PJM East
PJM West
NY HOMER CITY

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